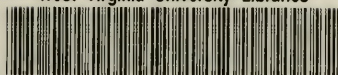


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James W. Paul,

Chief Mine Inspector.

TWENTY-FIRST
ANNUAL REPORT
COAL MINES
IN THE STATE OF
WEST VIRGINIA, U. S. A.
FOR THE YEAR ENDING
JUNE 30TH, 1903.

JAMES W. PAUL,
CHIEF MINE INSPECTOR,
CHARLESTON.



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LETTER OF TRANSMITTAL.

Office of the Chief Mine Inspector,
State of West Virginia

To His Excellency, ALBERT B. WHITE.

Governor of West Virginia.

SIR: I have the honor to submit herewith my seventh annual report as Chief Mine Inspector for the State.

This report embraces a description of the condition of the coal mines and statistical matter pertaining to the mining industry of the State, and appears as the Twenty-first Annual Report for the year ending June 30th, 1903.

Very respectfully,

JAMES W. PAUL,
Chief Mine Inspector.

Charleston, December 14th, 1903.

INTRODUCTION.

This is the seventh annual report which the Chief Mine Inspector has issued and it embraces the twenty-first annual report upon the condition of the coal mines in the State, as made by the several district inspectors, as well as matter of importance bearing upon the coal and coke industry of the State.

Under the heading "Annual Report" is given a summary of the leading subjects treated in the body of the report.

The matter of this report appears under the following titles:

Statistical.

Improvements.

Strikes.

Directory of the Mines.

Accidents.

Condition of the Mines.

Under which latter will be found the annual reports of the district mine inspectors.

ERRATA.

Page 7, second paragraph from bottom, first line, read "mechanical" instead of "machanical."

Page 15, Fayette County, first column read "1,522.420" instead of "1,522,430."

Page 186, second paragraph, 9th line, after the word "many" omit "of."

Page 188, second paragraph, 4th line, after the word "about" read "5".

Page 208, 4th paragraph, Superintendent's name should be "Bebee."

Page 215, bottom line, read after the word loose "slate."

Page 288, second paragraph, first line, read "U". G. instead of "W". G.

Page 335, last paragraph, second line from bottom, read "used" instead of "user."

ANNUAL REPORT.

TO THE GOVERNOR:

As in my six previous reports, in this one the same general plan has been followed in the presentation of statistical matter in tabulated form.

Notwithstanding the labor troubles which confronted the coal business in the State at the beginning of the year there has been a phenomenal development throughout the State, although the coal production has been somewhat curtailed by the enforced idleness of the mines in the largest coal producing county, by reason of the employes being on a strike.

By the addition of Grant the counties in which coal is produced on a commercial scale now number 24.

The number of openings increased from 408 in 1902 to 530 the present year, a gain of 122 openings which require inspection.

The number of firms increased from 240 the previous year to 271 for the present year, a gain of 31.

The order of counties in production has undergone important changes during the year. Fayette county, which has headed the list as the largest coal producer, has taken second rank and McDowell for the year heads the list in both coal and coke, while Fayette retains second place in coke production. Marion continues to hold third place in coal and fourth in coke. Harrison exchanged place with Kanawha and is now fourth in rank in coal. Tucker continues sixth in coal and third in coke.

Had the mines remained at work it is probable the production of coal would have reached 27,000,000 tons.

Output.—The mines produced in tons of 2,240 lbs. 22,913,698 tons, a decrease of 445,385 tons under the previous year when the tonnage was 23,359,083.

The tonnage was disposed of in the following manner:

Used in operating the mines.....	266,691
Local trade and tenants.....	210,273
Used in the coke ovens.....	3,774,674
Shipped from the mines.....	18,662,060
A total of	22,913,698 of which
Was pick mined	16,600,804 and
Machine mined	6,312,894 tons

This tonnage of coal originated in the geographical districts compared with the previous year as follows:

	1903	1902	Change
Potomac District.....	1,622,068	1,622,076 D	8
Morgantown District.....	6,679,000	6,431,794 I	247,206
Wheeling District.....	503,925	444,573 I	59,352
Kanawha New River District.....	6,540,325	8,206,865 D	1,666,540
Norfolk & Western District.....	7,388,380	6,473,835 I	914,545
Small mines in the State.....	180,000	180,000	.....
Total	22,913,698	23,359,083 D	445,385

Each district shows an increase over the previous year excepting the Potomac and the Kanawha—New River which shows a decrease of 1,666,540 tons. The greater part of this loss came from Fayette county, since Kanawha increased in 1903 over 1902 by 15,366 tons.

Losses in production were sustained in ten counties and gains were made in thirteen counties, not including Grant county, which for the first time furnished a tonnage.

For the first six months of the year the production was 9,911,443 and for the second six months 13,002,255 tons.

The tonnage of coal and coke transported on the Great Kanawha River for the 12 months ending Dec. 31, 1902, was: Coal, 936,380; coke, 1,500 tons of 2,000 lbs. each.

Eleven companies produced 8,528,154 tons or 37 per cent. of the State's total tonnage. There are seven other companies which produced over 200,000 tons each and forty-four each of which produced over 100,000 tons but less than 200,000 tons.

Tons of Pick Mined Coal Produced Per Each Pick Miner, in Commercial Coal Mines, 1897 to 1903.

(Tons of 2,240 lbs.)

YEAR.	Pick coal from commercial mines.	Pick coal from small country mines	Pick miners in commercial mines.	Pick miners in small country mines	Days worked.	Tons produced in commercial mines per each miner.
1897.....	10,971,482	133,929	13,218	No rec'd	197	830.
1898.....	13,084,572	140,000	14,636	do	214	932.
1899.....	14,366,871	150,000	14,119	do	240	1,017.5
1900.....	16,199,300	150,000	14,723	do	261	1,100.
1901.....	16,533,138	175,000	16,609	do	225	995.
1902.....	18,043,260	180,000	15,969	do	249	1,129.8
1903.....	16,420,804	180,000	16,287	do	201	1,008.
	105,619,427	1,108,929	104,961	.....	1,587	.....

Average tons per year for each miner 1 006.

Average time worked per year 227 days.

Machine Mining.—Machine mined coal has grown from 600,418 in 1897 to 6,312,894 tons in 1903, which is 27 1-2 per cent. of the total coal production of the State, which is an increase over the previous year of 1,176,875 tons. The number of mines using machines in the same period has grown from 16 to 181; the machines have increased from 55 to 795 and the employes increased from 652 to 6,531.

For a period of 7 years dating from 1897 the pick mined coal produced per each pick miner employed was 1,006 tons per year and the tons of machine coal produced per each machine employe were 1004.7 while the average coal produced per year by each machine in use was 9329.7 tons. This is the average for the actual days the mines were in operation each year, which time averages 227 days.

The production for each machine per day was 41.1 tons, equivalent to 1068.6 tons per month of 26 days.

The table following will readily exhibit the growth of machine mining from 1897.

Progress of Machine Mined Coal 1897 to 1903.

YEAR.	No. of mines using machines.	No. of machines in use.	Total employes incident to machines	Tons produced by machines.	Percentage of coal to total coal production.	Days worked
1897	16	55	652	600,418	5.12	197
1898	28	96	933	1,070,293	7.4	214
1899	41	141	1,608	1,733,279	10.66	240
1900	63	241	2,371	2,537,611	13.43	261
1901	90	386	3,967	3,582,853	17.65	225
1902	124	534	4,813	5,135,823	21.98	249
1903	181	795	6,531	6,312,894	27.50	201
.....		2,248	20,875	20,973,171	.....	.....

Tons per each employe per year 1004.7.

Tons produced by each machine per year 9329.7.

Average days worked per year 227.

Average tons produced by one machine per day 41.1.

Average tons produced by one machine per month of 26 days 1068.6.

Men Employed.—The number of men employed in and about the mines and coke ovens during the year was: Pick miners, 16,287; machine miners and runners, 6,531, and 7,632 inside laborers, making a total inside of 30,450; outside mine employes, 5,151; coke employes, 3,851, a total outside of 9,002, or a total inside and outside of 39,452. The total of all employes for 1902 was 35,147, showing an increase for 1903 of 4,305 employes.

The increases were: Pick miners, 318; machine men, 1,718; inside laborers, 694; total inside, 2,730; coke employes, 447, and outside mine employes, 1,128, which gives a total gain outside of 1,575.

Days Worked.—The mines were operated during the year 201 days or 48 days less than during the previous year. The coke ovens were operated 234 days or 5 days more than the previous year.

In only three counties, Grant, Hancock and Tucker, were the mines operated a greater number of days than the average days worked in the State for 1902. Among the leading coal counties Fayette operated its mines 173 days; Kanawha 167 days; McDowell 215 days; Harrison 227 days; Marion 224 days; Mercer 230 days and Tucker 250 days.

Acreage Worked.—In the production of all coal from commercial mines there were excavated 3,222.3 acres, which is 129.7 acres less than were excavated the previous year.

The total acreage for the seven years from 1897 is as follows:

1897.....	1,733.9	Acres.
1898.....	2,184.5	"
1899.....	2,361.2	"
1900.....	2,638.8	"
1901.....	2,854.6	"
1902.....	3,353.	"
1903.....	3,222.3	"
Total.....	18,348.3	Acres.

Wages.—The average price paid pick miners throughout the State per ton of 2,240 lbs. for run-of-mine coal was 49 1-2 cents, for room coal and 52 3-5 cents for heading or entry coal. There is an increase over the previous year of 2 1-6 cents for room coal.

The average price paid for screened coal was 83 1-3 cents, against 78 cents in 1902, a gain of 5 1-3 cents per ton.

All other labor received from 10 to 15 per cent. advance over the previous year.

Machine miners, who load after the machines, received for run-of-mine coal, 35 cents in headings and 29 cents in rooms. For screened coal 68 1-2 cents in headings and 53 1-2 cents in rooms.

Machine miners received \$2.52 1-2 per day, and upon a weight basis, 9 cents per ton.

Machine helpers received from \$1.75 to \$2.50 or an average of \$1.95 per day.

While the earnings for each pick miner for the year was \$499, against \$533.56 for 1902 the daily wages averaged \$2.48 for 1903, against \$2.14 for 1902 for the actual time worked.

This is equivalent to a monthly wage of \$64.48 counting 26 days as one month's work.

Selling Price of Coal and Coke.—The selling price of coal per ton of 2,240 lbs. for the year was \$1.32 2-3 against 92 7-8 cents for the previous year, being a gain of 39.8 cents.

Coke sold for \$2.66 1-4 per ton of 2,000 lbs. against \$1.84 for the previous year, a gain of 82 1-4 cents.

Coke.—The production of coke for the year in tons of 2,000 lbs. was 2,483,376, an increase over the previous year of 233,632 tons. In eight counties there was an increase of 323,389 and in three counties a decrease of 89,757 tons.

There are 12,694 coke ovens completed, of which 9,091 were operated during the year and 3,605 were idle. There is in process of construction 1,646 new ovens.

Value of Product.—The gross value of all coal produced was \$30,398,839.34, and of coke produced \$6,611,988.60.

The gross total revenue obtained summarizes as follows:

Total value of all coal produced.....	\$ 30,398,839.34
Less value of coal used for steam at mines.....	\$ 353,810.06
Less value of coal used in coke ovens.....	5,007,734.16
	5,361,544.22
Total value of coal sold.....	\$ 25,037,295.12
Total value of coke produced.....	6,611,988.60
	<hr/>
Total gross value of product placed on market.....	\$ 31,649,283.72

Boilers at the Mines.—At 257 mines there are in use 612 steam boilers of which number 410 are insured and 202 are not insured. This is an increase over the previous year of 41 firms and 52 boilers.

Locomotives.—A total of 231 steam, electric and compressed air locomotives were in use at 145 mines, a gain of 58 locomotives during the year. The steam increased from 64 to 74; electric from 107 to 154 and compressed air from 2 to 3.

McDowell county leads with 60 locomotives at 33 mines; Fayette is second with 54 at 38 mines, followed in order by Kanawha, with 35 at 27 mines; Mercer, with 21 at 8 mines and Tucker, 12 at 6 mines.

Powder Used.—Two hundred and seventy-nine operations reported the use of 249,323 kegs of powder in the winning of 17,863,804 tons of coal, or a keg was used for each 72 tons of coal won. The powder was sold at the average price of \$1.71 per keg, which is 12 cents less than during the previous year.

Strikes.—The mining industry was much retarded by reason of a strike

having been called by the officials of the United Mine Workers of America for the purpose of inducing the operators to agree with the organization upon a scale of wages. This call affective from June 7, 1902, was largely observed by the mine workers along the Kanawha and New Rivers and in a few other sections of the State, but the strike order was most effective in Fayette and Kanawha counties. The history of the mining industry of this State would be incomplete by omitting mention of the consequences of this strike.

The operators in the New River field resisted and refused all overtures made by the strikers and matters were so serious that a part of the National Guard of the State was brought into service.

In the process of legal proceedings a number of persons were injured and several lost their lives in a conflict with officers of the law.

The strike was partially broken in some sections by the importation of new men. In October, 1902, some of the operators in Fayette and Kanawha counties made amicable agreements with the employes and work was resumed and in April, 1903, the Kanawha operators signed a joint scale agreement and all employes resumed work.

In the New River field a great many of the men returned to work and by May only a few of the men remained idle.

In July, 1903, the officials of the United Mine Workers declared the strike off.

An attempt has been made to secure a full report of this strike, but in many instances the reports made by the operators were incomplete.

Fifteen counties reported 171 mines having been affected by the strike. This is nearly 50 per cent. of the total number of mines within the State.

Only 39 of the 171 mines made full reports concerning the strike.

Fifty-seven reported a total loss in wages to the employes of \$745,551.00, and forty mines reported a loss sustained by the operators of \$340,550.00.

The total number of men thrown out of employment at the 171 mines was 16,405.

A detailed tabulation concerning the strikes for the year will be found in a subsequent chapter of this report.

Accidents.—During the year 147 lives were lost inside of the mines and 12 on the outside. This is an increase over 1902 of 37 inside and 2 outside.

For each 1,000 persons employed inside of the mines 4.82 persons were killed and for each 1,000 employed outside 1.33 persons were killed.

There were 208 non-fatal inside and 15 non-fatal outside of the mines, a decrease inside of 16 compared with the previous year.

Upon the basis of each 1,000 days' work accomplished inside there were killed .0240 and injured .0339 persons.

With reference to each 1,000 days' work on the outside, including the coke ovens, there were killed .006 and injured .0075 persons.

From 1893 to 1903 there were killed in the mines 985 persons a. outsides of the mines 82 persons. Seventy per cent. of the inside fatalities were due to falls of roof and coal; 8.9 percent. to mine cars; 15 per cent. to powder, dust and gas explosions and 6.1 to miscellaneous causes.

Of the 82 fatalities on the outside of the mines 79 per cent. was due to mine cars; 2.4 per cent. to machinery; 4.9 per cent. to locomotives and 13.7 per cent. other causes.

At the Algoma mine in McDowell county occurred the worst disaster of the year where 17 persons were killed by an explosion of gas.

Another was the gas explosion at the Stafford Shaft of the New Central Coal Co., in Marion county, where 6 persons were killed. The investigation at each of these mines revealed as the cause of the explosion a violation of the law.

Fifty percent. of all accidents for the year befell employes having had three years and less experience within the coal mines.

Considering the lack of practical knowledge on the part of a very large number of inexperienced persons employed within the mines it is certainly providential that the accident list is no greater.

Summary of Accidents Inside of the Mines for 1902 and 1903.

	1902	1903	Change
Number of employes inside	27,720	30,450 I	2,730
Number of days mines were operated.	249	201 D	48
Number of persons killed inside	110	147 I	37
Number of days' work accomplished	6,802,280	6,120,450 D	681,830
Number killed per 1000 employes inside.....	3.96	4.82 I	.86
Number killed per 1000 days' work inside ....	.0161	.0240 I	.0088
Number persons injured non-fatally inside....	224	208 D	16
Number injured per 1000 employes inside	8.086	6,830 D	1,256
Number injured per 1000 days' work inside....	.0329	.0339 I	.001
Number inside employes for each fatality....	252	207 D	45

Inspections Made.—The five district inspectors made a total of 1197 inspections during the year and investigated the majority of all fatal accidents. Considering that there are 530 mines which require a personal examination, necessitating many miles of travel to reach the various mines, the above record of inspections and special investigations made speak well for the diligence of the inspectors.

I wish again to emphasize the importance of providing additional inspection force. It is impossible for one man to make four annual inspections of 125 mines and make examination of all fatal accidents and at the same time sample the oils used at each mine in his district.

At least three additional district inspectors are needed if the State continues to give the mine employes the protection they need.

Review of the District Inspectors' Reports.—In his annual report upon the first mining district, Mr. Kelley states that he has made 208 inspections of the 73 mines in his district, and has personally investigated 34 accidents out of a total of 32 fatalities and 68 non-fatal accidents. Of the fatal and serious accidents he states that 80 per cent were due to neglect in timbering or otherwise making the working places safe. There has been an increase of 18 mines in this district and the inspector reports that the mines are in a very satisfactory condition and that many substantial improvements have been made in ventilation and equipment.

Mr. Kelley calls special attention to the plan of development being adopted at some of the mines in his district which he does not approve as, in his judgment, it will lead to loss of life in mines where explosive gas is found. He claims that the practice, in a gaseous mine, of turning rooms from each of a pair of parallel headings will lead to a derangement

of the ventilating current when any of the rooms are made to communicate with rooms being driven from another set of parallel headings, unless a stopping is placed at their intersection. Again, the gas in any event will be carried from the rooms on the intake heading to the rooms on the return heading and increase the danger of an explosion.

His suggestion recommending legislation to prohibit men from riding in cars drawn by electric motors would work a hardship at a number of the mines in the State where special trips are made by electric motors and a train of mine cars to haul the men long distances to and from their work. However, the danger remains and accidents have happened by powder cans and flasks coming in contact with the electric wires and in some cases by reason of the draw bars of the cars becoming charged by the electric current which was communicated to a keg of powder and causing it to explode.

The matter of regulating by statute the handling of explosives in mines is serious and it is next to impossible to prohibit men from carrying their powder as they see fit.

A remedy that would more likely be adopted would be a non-conducting hitching to be used between the motor and the car to which it is attached when hauling the employes.

Mr. E. A. Henry, Inspector of the second district, reports having made 108 inspections and frequent visits to the mines to investigate accidents.

In no other district has so much improvement been made in the ventilation of mines. Twenty fans have been installed, three furnaces have been constructed and two small fans were replaced by large ones. Thirteen electric plants were installed at as many mines in the district and thirty-eight new mines were opened in the district during the year.

Mr. Pinkney in his report comments at length upon the effect of the strike which was inaugurated on June 7th, 1902.

Fayette county suffered to the the greatest extent by reason of the strike as is fully attested by the coal production for the last six months of the calendar year 1902.

During the year Mr. Pinkney made 282 inspections of the mines in his district and made 30 investigations of accidents.

The mines in the third district increased during the year from 116 to 136 but of this number Mr. Pinkney had under his charge 124, the remaining 12 being assigned the inspector of the Second district.

The machanical equipment of the mines in this third district is varied and elaborate. One hundred and sixty steam boilers are in use which furnish power for the different plants. Twenty-nine electric power plants; thirty-two electric motors; seventy-seven electric mining machines; twenty electric pumps; twenty-seven rope haulage systems; nineteen steam locomotives; thirteen air compressors; ninety-four compressed air mining machines and one compressed air locomotive compose the mechanical equipment in use, in addition to which is added 60 mine fans. There are in process of installation four electric power plants.

One hundred coke ovens were building at the date of the inspector's report at the Kaymoor No. 1 Mine.

Out of a total of 39 fatal accidents in his district, Mr. Pinkney calls attention to 19 having been at the working face and states that the majority of the accidents in his district befall men of long experience in the mines.

Mr. Cooper, inspector of the 4th district, made 283 official inspections and 40 additional visits to mines in his district.

In Mingo county 12 and in McDowell county 14 new mines were opened during the year.

In the matter of accidents, Mr. Cooper comments upon the careless manner in which a great many of the miners conduct themselves while at work in the mines.

An explosion at the Algoma mine on Sept. 15, 1902 resulted in the death of 17 persons. Mr. Cooper attributes this to neglect of the authorities to comply with the mining law. A description of this accident appears under the chapter devoted to accidents.

Mr. Cooper reports the condition of the mines in his district to be very satisfactory.

Mr. Westlake reports having made 270 visits to the mines in his district of which 244 consisted of personal inspections of the mines.

Eleven new and five old mines were put in operation in the fifth district and during the year 450 coke ovens were completed and 750 additional were under construction.

Next to McDowell county the most active counties in coke oven construction are Preston and Randolph.

Of the mines reported upon by Mr. Westlake 28 have mechanical haulage and 24 operate mining machines; 34 mines have fans; 12 have furnaces and 15 have fire baskets for ventilation, while 14 depend upon natural ventilation.

General Summary.—The foregoing review of the district inspectors' reports shows that the operators throughout the State have been exceptionally active in making many improvements for the betterment of the condition of the mines, especially pertaining to ventilation and it is a pleasure to know that the operators are showing a disposition to discard furnaces for ventilating purposes.

Having been in a position to know the condition of the mines in the State for a number of years, I feel safe in saying that at no previous time have the general conditions been as good as they now are with respect to ventilation, drainage and general safety.

There is a growing tendency throughout the State to provide better houses for the employes and in some sections the employes are provided with houses having many conveniences such as electric lights, running water and bath rooms.

Ankylostomiasis.—The ankylostomiasis is a parasite known as a "hook worm" or "laziness germ" which infects the intestines by attaching itself to the mucous membrane and abstracting blood. The body is from one half to one inch long.

The effect of this parasite upon the system is to produce a feeling of laziness, a swelling of the limbs and a depraved appetite.

The worm is taken into the system by drinking water and from the fingers when the hands are unclean.

A remedy in case of infection may be found in the use of thymol or male fern along with purgative salts, the diet to consist of milk, soup and water.

This parasite is especially adapted to propagation within coal mines where the sanitary conditions are bad and where there is much moisture.

In Germany, Austria, Hungary and other European mines this parasite is reported prevalent and owing to the migration of miners from these countries to the United States it is well to prepare to meet this pest by proper sanitary regulations within the mines.

Without the co-operation of the district inspectors the work of this department would have been very incomplete and I desire to express my appreciation of their faithful service and to extend to your Excellency a full appreciation of your indulgence in my effort to do you honor in the conduct of this department.

Respectfully,

JAMES W. PAUL,
Chief Mine Inspector.

STATISTICAL.

THE FOLLOWING TABLE EXHIBITS A COMPARATIVE STATEMENT AND SUMMARY OF THE
ANNUAL REPORTS FOR 1902 AND 1903.

	For year ending June 30, 1903.	For year ending June 30, 1902.	Increase of 1903 over 1902.	Decrease of 1903 under 1902.
Number of Counties in which coal is mined on a commercial scale.....	24	23	1	.....
Number of firms operating coal mines on a commercial scale.....	271	240	31	.....
Number of openings of all kinds subject to the mining law.....	530	408	122	.....
Number of tons (2240 lbs.) pick mined coal from commercial mines.....	16,420,804	18,043,260	.....	1,622,456
Number of tons (2240 lbs.) machine mined coal from commercial mines.....	6,312,894	5,135,823	.....	.....
Total number of tons (2240 lbs.) of coal from commercial mines.....	22,733,698	23,179,081	1,177,071	445,385
Estimated tons of coal from small mines (2240 lbs.).....	180,000	180,000	.....	.....
Total number of tons of coal from all mines (2240 lbs.).....	22,913,698	23,359,083	.....	445,385
Number of tons of coal converted into coke (2000 lbs.).....	4,227,654	3,772,855	454,779	.....
Number of tons of coke manufactured (2000 lbs.).....	2,483,376	2,249,744	233,632	.....
Total value of coal at the mines.....	30,398,839.35	21,094,748.33	8,704,091.02	.....
Total value of coke at the ovens.....	6,611,988.60	4,139,528.96	2,472,459.64	.....
Value of a ton of coal at the mines (2240 lbs.).....	1.82%	.92%	.....	.....
Value of a ton of coke at the ovens (2000 lbs.).....	2.66%	1.84	.....	.....
Number of mining machines in use.....	735	554	181	.....
Average number of coke ovens in use.....	9,091	7,659	1,432	.....
Number of days the mines were in operation.....	201	249	.....	48
Number of pick miners employed in commercial coal mines.....	234	229	5	.....
Number of machine operators and miners employed in commercial coal mines.....	16,287	15,969	318	.....
Number of under-ground laborers in commercial coal mines.....	6,531	4,813	1,718	.....
Number of outside employees connected with the commercial coal mines.....	7,632	6,938	694	.....
Number of coke employes.....	3,151	4,023	1,128	.....
Total number of men employed at the commercial mines and ovens.....	3,851	3,404	447	.....
Number of men killed.....	39,452	35,147	4,305	.....
Number of men injured non-fatally.....	159	120	39	.....
Number of men employed for each man killed.....	223	239	.....	16
Number of men employed for each man injured.....	248	293	.....	45
Tons of coal mined in commercial mines for each fatality.....	177	147	30	.....
Tons of coal mined in commercial mines for each fatality.....	142,979	193,159	.....	50,180
Number of wives left widows.....	101,945	96,983	4,962	.....
Number of children left fatherless.....	58	52	6	.....
Number of coal worked out.....	101	94	7	.....
Number of tons of coal produced (in commercial mines) per miner, pick and machine miners and runners included.....	3,222.29	3,353.63	.....	130.74
Average earnings of each miner per year.....	996	1,171	.....	175
Average earnings of each miner per month.....	499.06	553.56	.....	34.50
Average price per ton of 2240 lbs. received for mining run-of-mine coal (cents).....	41.59	44.46	.....	2.87
	49%	47%	2	.....

TABLE SHOWING PRODUCTION OF COAL AND COKE FOR
THE YEARS 1883 TO 1903, INCLUSIVE.

*YEARS.	Coal (Tons of 2,240 lbs.)	Coke (Tons of 2,000 lbs.)	YEARS.	Coal (Tons of 2,240 lbs.)	Coke (Tons of 2,000 lbs.)
1883	2,805,565	190,889	1894	9,427,028	1,067,156
1884	3,000,000	182,000	1895	9,878,099	1,204,657
1885	3,008,091	187,619	1896	12,062,468	1,594,691
1886	3,213,093	228,623	1897	11,705,829	1,374,497
1887	4,207,039	481,477	1898	14,294,865	1,742,256
1888	4,799,611	517,317	1899	16,250,150	1,950,179
1889	4,663,857	360,716	1900	18,886,911	2,496,107
1890	5,643,946	892,490	1901	20,290,991	1,932,912
1891	7,281,427	1,208,418	1902	23,359,083	2,249,744
1892	7,777,570	1,333,439	1903	22,913,698	2,483,376
1893	9,758,991	1,090,909			

*Calendar years 1883 to 1887, inclusive. Since 1887 the coal and coke statistics have been given for the fiscal years ending June 30th.

TABLE SHOWING THE COKE PRODUCTION, BY COUNTIES,
FROM 1897 TO 1903, INCLUSIVE.

(Tons of 2,000 lbs.)

COUNTIES.	1897	1898	1899	1900	1901	1902	1903
Barbour		1,350	5,980	12,579	12,666	15,682	20,991
Fayette	329,089	394,052	454,999	481,699	442,411	115,398	437,090
Harrison		5,419	5,871	15,994	5,190	16,572	62,582
Kanawha	20,132	21,578	10,983	32,665	30,722	29,722	25,789
Marion	142,043	149,060	155,985	298,119	118,285	210,451	282,924
McDowell	567,070	731,681	923,166	1,070,033	953,702	929,433	1,016,988
Mercer	115,522	145,061	192,932	207,277	167,769	175,083	167,567
Monongalia	2,778	12,337	5,204	17,077	5,777	19,948	30,509
Preston	19,567	28,450	34,023	46,250	6,500	18,930	34,627
Raleigh	18,454	20,007	20,398	15,460			
Randolph				3,223	13,498	38,845	120,387
Tucker	159,842	229,261	140,638	295,731	176,392	279,680	284,122
Totals	1,374,497	1,742,256	1,950,179	2,496,107	1,932,912	2,249,744	2,483,376

ORDER IN THE PRODUCTION OF COKE.

COUNTY.	1897	1898	1899	1900	1901	1902	1903
McDowell	1	1	1	1	1	1	1
Fayette	2	2	2	2	2	2	2
Tucker	3	3	5	4	3	3	3
Marion	4	5	4	3	5	4	4
Mercer	5	4	3	5	4	5	5
Kanawha	6	7	8	7	6	7	10
Preston	7	6	6	6	9	9	8
Randolph				12	7	6	6
Raleigh	8	8	7	10			
Monongalia	9	9	11	8	11	8	9
Harrison		10	10	9	10	10	7
Barbour		11	9	11	8	11	11

TABLE SHOWING THE COAL PRODUCTION, BY COUNTIES,
FROM 1888 TO 1903, INCLUSIVE.

(Tons of 2,240 lbs.)

COUNTIES.	1888	1889	1890	1891	1892	1893	1894	1895
Barbour.....							7,736	
Brooke.....	17,108	19,203	32,857	33,999	35,046	29,375	32,445	50,013
Fayette.....	1,522,430	989,276	1,302,355	1,737,617	1,564,579	2,350,250	1,195,102	2,162,090
Grant.....								
Hancock.....								
Harrison.....	113,030	111,440	128,964	113,268	142,960	248,099	275,297	204,442
Kanawha.....	982,310	976,396	1,021,385	1,209,386	1,175,371	1,210,749	1,143,626	1,078,253
Lincoln.....								
Logan.....							52,673	40,610
Marion.....	253,475	245,899	406,900	722,594	903,896	958,296	1,186,542	1,198,336
Marshall.....	59,172	84,606	110,418	118,242	166,893	110,530	84,037	137,762
Mason.....	85,870	126,797	129,744	116,598	123,323	141,101	92,764	171,074
McDowell.....		245,760	504,222	704,871	1,100,882	1,876,838	2,340,581	2,440,551
Mercer.....	762,645	744,803	744,403	1,210,723	1,175,141	1,196,574	886,942	865,379
Mineral.....	468,618	433,365	512,217	623,067	473,862	557,488	489,808	614,780
Mingo.....								95,279
Monongalia.....		6,850	28,000	46,100	70,062	97,905	62,125	47,653
Nicholas.....								
Ohio.....	137,678	159,664	92,487	80,738	82,534	48,681	49,821	88,691
Preston.....	147,290	134,925	159,320	134,467	82,089	105,618	39,936	52,385
Putnam.....	135,100	107,325	183,184	156,856	154,692	197,733	148,474	122,057
Raleigh.....							48,365	84,762
Randolph.....						937		
Taylor.....	66,439	177,901	68,403	83,851	74,000	68,028	72,229	86,536
Tucker.....	48,256	79,647	219,087	189,050	396,320	538,950	418,805	316,345
Wayne.....					55,920	21,839	40,720	21,101
Small mines.....								
Totals.....	4,799,611	4,663,857	5,643,946	7,281,427	7,777,570	9,758,991	9,427,028	9,878,099

COUNTIES.	1896	1897	1898	1899	1900	1901	1902	1903
Barbour.....		31,658	48,600	63,275	73,041	226,047	394,768	525,924
Brooke.....	49,623	42,198	56,793	63,176	61,396	65,904	55,857	24,266
Fayette.....	3,253,547	2,993,061	3,960,266	4,446,469	4,547,002	5,375,702	5,724,882	4,075,324
Grant.....								28,489
Hancock.....		33,838	42,870	39,440	47,013	30,357	38,685	70,495
Harrison.....	155,772	221,249	271,554	413,150	647,430	1,088,715	1,662,144	2,108,336
Kanawha.....	1,088,737	1,042,745	1,213,116	1,293,068	1,456,890	1,727,115	1,863,386	1,878,752
Lincoln.....							12,053	53,330
Logan.....								
Marion.....	1,219,017	1,368,682	1,639,625	2,392,983	2,925,907	2,674,553	3,172,194	2,668,914
Marshall.....	148,128	162,396	165,874	233,800	242,176	199,633	201,179	279,276
Mason.....	101,448	111,535	109,204	106,867	85,367	98,427	113,527	102,282
McDowell.....	2,836,013	2,617,917	3,183,529	3,516,668	4,142,102	4,219,251	4,734,199	5,249,913
Mercer.....	1,308,417	873,300	1,004,379	1,144,258	1,046,937	1,052,153	1,104,523	1,274,003
Mineral.....	554,492	537,169	510,757	554,286	562,667	513,772	552,181	514,582
Mingo.....	111,800	267,789	383,280	350,294	466,695	501,410	635,113	864,464
Monongalia.....	52,080	31,288	68,867	56,793	82,148	75,589	130,371	148,074
Nicholas.....							12,199	7,645
Ohio.....	122,106	95,578	96,912	119,960	96,610	115,830	148,852	129,888
Preston.....	116,361	120,211	169,044	277,173	403,610	434,713	449,528	574,741
Putnam.....	161,555	131,522	128,851	164,004	203,449	125,221	208,712	178,904
Raleigh.....	89,279	63,701	79,315	93,370	68,360	102,089	272,106	244,088
Randolph.....				31,975	103,207	167,883	265,687	388,487
Taylor.....	43,469	178,397	190,532	249,103	376,030	383,223	415,502	264,524
Tucker.....	523,624	647,666	831,497	490,038	1,098,874	938,304	1,011,435	1,078,997
Wayne.....	2,000							
Small mines.....	125,000	133,929	140,000	150,000	150,000	175,000	180,000	180,000
Totals.....	12,062,468	11,705,829	14,294,865	16,250,150	18,886,911	20,290,991	23,359,083	22,913,698

ORDER IN THE PRODUCTION OF COAL.

COUNTY.	1897	1898	1899	1900	1901	1902	1903
Fayette.....	1	1	1	1	1	1	2
McDowell.....	2	2	2	2	2	2	1
Marion.....	3	3	3	3	3	3	3
Kanawha.....	4	4	4	4	4	4	5
Mercer.....	5	5	5	6	6	6	6
Tucker.....	6	6	7	5	7	7	7
Harrison.....	9	9	8	7	5	5	4
Mineral.....	7	7	6	8	8	9	11
Mingo.....	8	8	9	9	9	8	8
Preston.....	13	11	10	10	10	10	9
Taylor.....	10	10	11	11	11	11	14
Marshall.....	11	12	12	12	13	16	13
Randolph.....	.....	.....	.....	14	14	14	12
Putnam.....	12	13	13	18	15	15	16
Raleigh.....	16	16	16	19	17	13	15
Barbour.....	19	19	17	18	12	12	10
Ohio.....	15	15	14	15	16	17	18
Mason.....	14	14	15	16	18	19	19
Monongalia.....	20	17	19	17	19	18	17
Brooke.....	17	18	18	20	21	20	23
Hancock.....	18	20	20	21	21	21	20
Lincoln.....	.....	.....	.....	.....	.....	23	21
Grant.....	.....	.....	.....	.....	.....	.....	22
Nicholas.....	.....	.....	.....	.....	.....	22	24

TABLE SHOWING THE COMPARATIVE STATEMENTS OF THE COAL PRODUCTIONS FOR 1902 AND 1903.

COUNTY.	1903	1902	Increase of 1903 over 1902.	Decrease of 1903 under 1902.
Brooke.....	24,266	55,857	.....	31,591
Hancock.....	70,495	38,685	31,810	.....
Harrison.....	2,108,336	1,662,144	446,192	.....
Marion.....	2,668,914	3,172,194	.....	503,280
Monongalia.....	148,074	130,371	17,703	.....
Marshall.....	279,276	201,179	78,097	.....
Ohio.....	129,888	148,852	.....	18,964
Kanawha.....	1,878,752	1,863,386	15,366	.....
Mason.....	102,282	113,527	.....	11,245
Putnam.....	178,904	208,712	.....	29,808
Lincoln.....	53,330	12,053	41,277	.....
Fayette.....	4,075,324	5,724,882	.....	1,649,558
Raleigh.....	244,088	272,106	.....	28,018
Nicholas.....	7,645	12,199	.....	4,554
McDowell.....	5,249,913	4,734,199	515,714	.....
Mercer.....	1,274,003	1,104,523	169,480	.....
Mingo.....	864,464	635,113	229,351	.....
Barbour.....	525,924	394,768	131,156	.....
Grant.....	28,489	.....	28,489	.....
Mineral.....	514,582	552,181	.....	37,599
Preston.....	574,741	449,528	125,213	.....
Randolph.....	388,487	265,687	122,800	.....
Taylor.....	264,524	415,502	.....	150,978
Tucker.....	1,078,997	1,011,455	67,562	.....
Totals.....	22,733,698	23,179,083	2,020,210	2,465,595
Small mines.....	180,000	180,000	.....	.....
Grand Totals.....	22,913,698	23,359,083	2,020,210	2,465,595

ORDER IN THE PRODUCTION OF COAL AND COKE BY COUNTIES FOR YEAR ENDING JUNE 30th, 1903.

DISTRICT.	COUNTY.	No. of Mines Producing Coal.	Coal Production (Tons of 2,240 lbs.)			Coke Production (Tons of 2,000 lbs.)			Order in Production.	
			1st 6 Mos.	2nd 6 Mos.	Total Coal Produced for Year.	1st 6 Mos.	2nd 6 Mos.	Total for the Year.	Coal.	Coke.
First	Brooke.....	4	9,196	15,070	24,266	.....	.....	.....	23	.....
First	Hancock.....	2	26,913	43,582	70,495	.....	.....	.....	20	.....
First	Harrison.....	40	1,083,287	1,083,049	2,166,336	29,201	33,181	62,382	4	7
First	Marion.....	24	1,379,969	1,288,945	2,668,914	142,902	140,022	282,924	3	4
First	Monongalia.....	5	68,097	79,977	148,074	14,844	15,665	30,509	17	9
First	Marshall.....	5	130,394	128,882	279,276	.....	.....	.....	13	.....
First	Ohio.....	7	72,636	57,252	129,888	.....	.....	.....	18	.....
Second	Kanawha.....	71	577,863	1,300,880	1,878,752	8,195	17,594	25,789	5	10
Second	Mason.....	9	56,563	45,699	102,262	.....	.....	.....	19	.....
Second	Putnam.....	5	58,532	120,572	178,904	.....	.....	.....	16	.....
Second	Lincoln.....	2	24,897	28,433	53,330	.....	.....	.....	21	.....
Third	Fayette.....	106	1,318,434	2,736,890	4,055,324	134,937	302,153	437,090	2	2
Third	Raleigh.....	13	105,617	138,471	244,088	.....	.....	.....	15	.....
Third	Nicholas.....	3	3,672	3,973	7,645	.....	.....	.....	24	.....
Fourth	McDowell.....	53	2,476,063	2,773,850	5,249,913	466,692	550,296	1,016,988	1	1
Fourth	Mercer.....	15	546,197	727,806	1,274,003	61,566	106,001	167,567	6	5
Fourth	Mingo.....	23	384,746	479,718	864,464	.....	.....	.....	8	.....
Fifth	Barbour.....	12	333,490	292,434	625,924	9,258	11,733	20,991	10	11
Fifth	Grant.....	3	9,655	18,834	28,489	.....	.....	.....	22	.....
Fifth	Mineral.....	11	238,754	275,828	514,582	.....	.....	.....	11	.....
Fifth	Preston.....	18	177,165	336,965	514,130	14,343	20,284	34,627	9	8
Fifth	Rockwell.....	8	133,020	211,382	344,402	54,950	65,437	120,387	12	6
Fifth	Taylor.....	6	133,020	131,504	264,524	.....	.....	.....	14	.....
Fifth	Tucker.....	8	506,547	572,450	1,078,997	137,098	147,024	284,122	7	3
	Totals.....	453	9,821,443	12,912,255	22,733,698	1,073,986	1,409,390	2,483,376	.....	.....
	Small mines.....	.....	90,000	90,000	180,000	.....	.....	.....	.....	.....
	Grand Totals.....	453	9,911,443	13,002,255	22,913,698	1,073,986	1,409,390	2,483,376	.....	.....

PRODUCTION OF COAL AND COKE BY COUNTIES FOR YEAR ENDING JUNE 30th, 1903.

DISTRICT.	COUNTY.	Coal Production (Tons of 2,240 lbs.)			Distribution of Coal (Tons of 2,240 lbs.)				Coke Production (Tons of 2,000 lbs.)			Acres of coal worked out.
		1st 6 mos.	2nd 6 mos.	Total coal produced for year.	Used in operation of mine.	Furnished local trade and tenants.	Used in coke ovens.	Quantity shipped from mine	1st 6 mos.	2nd 6 mos.	Total for the year.	
First.	Brooke.	9,196	15,070	24,266	22	536	.....	23,708	.....	.....	.....	4.35
First.	Hancock.	26,913	43,582	70,495	421	90	.....	60,984	.....	.....	.....	15.81
First.	Harrison.	1,025,287	1,083,049	2,108,336	24,820	5,561	103,239	1,974,716	29,201	33,181	62,382	243.08
First.	Marion.	1,379,969	1,288,945	2,668,914	42,886	12,031	465,359	2,140,038	142,902	140,022	282,924	313.65
First.	Monongalia.	68,097	70,977	148,074	5,963	1,357	55,271	90,483	14,844	15,665	30,509	17.80
First.	Marshall.	150,384	128,882	279,266	5,961	17,280	.....	256,035	.....	.....	.....	40.41
First.	Ohio.	72,636	57,252	129,888	1,400	14,443	.....	114,045	.....	.....	.....	22.61
First.	Kanawha.	577,863	1,300,889	1,878,752	9,888	13,785	35,782	1,819,297	8,195	17,594	25,789	389.92
Second.	Mason.	56,583	45,699	102,282	965	28,156	.....	73,091	.....	.....	.....	18.10
Second.	Putnam.	58,532	120,372	178,904	1,410	3,802	.....	173,692	.....	.....	.....	26.72
Second.	Lincoln.	24,897	28,433	53,330	178	763	.....	52,389	.....	.....	.....	5.95
Third.	Payette.	1,318,634	2,756,890	4,075,524	45,631	41,742	682,521	3,305,230	134,937	302,153	437,090	705.94
Third.	Raleigh.	105,617	138,471	244,088	2,900	2,625	.....	238,563	.....	.....	.....	42.87
Fourth.	Nicholas.	3,672	3,973	7,645	178	568	.....	6,889	.....	.....	.....	1.37
Fourth.	McDowell.	2,476,063	2,773,850	5,249,913	42,864	28,197	1,480,348	3,662,504	467,692	550,296	1,016,988	665.06
Fourth.	Mercer.	546,197	727,806	1,274,003	5,881	8,256	249,279	1,010,587	61,566	106,001	167,567	108.31
Fourth.	Mingo.	384,746	479,718	864,464	5,869	7,134	.....	851,461	.....	.....	.....	128.55
Fifth.	Barbour.	233,490	292,434	525,924	12,909	3,125	29,834	483,056	9,258	11,733	20,991	67.94
Fifth.	Grant.	9,655	18,834	28,489	9,000	230	.....	19,259	.....	.....	.....	2.71
Fifth.	Mineral.	238,754	275,828	514,582	258	3,324	.....	512,000	.....	.....	.....	55.16
Fifth.	Preston.	237,776	336,965	574,741	31,715	8,003	55,188	479,835	14,343	29,284	34,627	106.13
Fifth.	Randolph.	177,105	211,382	388,487	2,137	3,882	158,871	223,597	54,950	65,437	120,387	97.57
Fifth.	Taylor.	133,020	131,504	264,524	2,054	1,105	.....	261,365	.....	.....	.....	27.65
Fifth.	Tucker.	506,547	572,450	1,078,997	16,551	5,238	455,982	601,226	137,098	147,024	284,122	164.63
	Totals.	9,821,443	12,912,255	22,733,698	266,631	210,273	3,774,474	18,482,060	1,073,986	1,409,390	2,483,376	3,222.29
	Small mines.	90,000	90,000	180,000	.....	.....	.....	180,000	.....	.....	.....	.....
	Grand totals	9,911,443	13,002,255	22,913,698	266,631	210,273	3,774,474	18,662,060	1,073,986	1,409,390	2,483,376	3,222.29

PRODUCTION OF COAL AND COKE FOR YEAR ENDING JUNE 30th, 1903.

NAME OF COMPANY.		NAME OF MINE.		Coal Production (Tons of 2,240 lbs.)		Distribution of Coal (Tons of 2,240 lbs.)				Production of Coke (Tons of 2,000 lbs.)			
				1st 6 mos.	2nd 6 mos	Total coal produced for year.	Used in operation of mine.	Furnished local trade and tenants.	Used in coke ovens.	Quantity shipped mine.	1st 6 mos.	2nd 6 mos.	Total for the year.
<i>Brooke County.</i>													
Panhandle C. Co.	Blanche.	268	268	536				536					
Wiotia C. Co.	Gilchrist.	5,357	9,900	15,257						15,257			
The Lewis Mines.	Lewis.		1,330	1,330						1,330			
Wells Coal Co.	Nellie.	3,571	3,572	7,143			22			7,121			
Totals.		9,196	15,070	24,266			22	536		23,708			
<i>Hancock County.</i>													
M. M. Cullen.	Porter No. 1.	5,357	5,357	10,714			71			10,643			
The Marquet C. Co.	Marquet.	21,556	38,225	59,781			430	90		59,341			
Totals.		26,913	43,582	70,495			421	90		69,984			
<i>Harrison County.</i>													
Clarksburg Fuel Co.	Pk. No. 1.	82,645	94,103	176,748			2,526	446		173,776			
	Pk. No. 2 or Fall Run	9,935	13,153	23,088			13			23,075			
	Dixie.	11,681	13,214	24,895				118		24,777			
	Two Lick.	26,256	29,512	55,768			698	17		55,053			
	Interstate.	20,117	28,364	48,481			649	78		47,754			
	O'Neil No. 1.	30,674	37,290	67,964			645	104		67,215			
	O'Neil No. 2.	38,512	41,720	80,232			658	107		79,467			
	Enterprise.	83,150	67,405	150,555			2,006	648	35,341	112,500	12,976	8,813	21,789
Fairmont Coal Co.	Viropia.	38,426	31,494	69,920			736	201		68,983			
	Ehlen.	28,944	25,438	54,382			521	420		53,441			
	Solon.	29,170	23,346	52,516			695	40		51,781			
	Gypsy.	88,720	86,353	175,073			4,637	1,106	30,335	139,565	9,864	8,477	18,341
	Harbert.												
	Maulsby.	25,854	18,065	43,919			776			43,143			
	Meadow Brook.	31,545	31,069	62,554			706	171	4,869	56,808		3,261	3,261
	Farrum.	24,999	24,171	49,170			348	187	6,942	44,043	1,816	2,326	4,142
	Glen Falls.	22,508	22,569	45,077			630	299		44,148			
	Dunham.	21,445	18,248	39,693			265	1		39,427			
	Lynch.	16,022	10,895	26,917						26,886			
	Summit.	16,723	13,271	30,000			290	62		29,648			
	Columbia.	36,300	66,787	103,087			1,030	175		101,882			
	Ocean.	48,912	81,757	130,669			1,263	243		129,133			
	Riverdale.	29,398	27,057	56,455			501	75		55,879			
Pittsburg & Fairmont C. Co.	Perry No. 1.	47,600	47,600	95,200			400			94,800			

PRODUCTION OF COAL AND COKE FOR YEAR ENDING JUNE 30th, 1903.

NAME OF COMPANY.	NAME OF MINE.	Coal Production (Tons of 2,240 lbs.)		Distribution of Coal (Tons of 2,240 lbs.)				Production of Coke (Tons of 2,000 lbs.)			
		1st 6 m. s.	2nd 6 mos.	Total coal produced for year.	Used in opera- tion of mine.	Furnished local trade and ten- ants.	Used in coke ovens.	Quantity shipped from mine.	1st 6 mos.	2nd 6 mos.	Total for the year.
Harrison County.—Continued.											
Pittsburg & Fairmont C. Co.	Perry No. 2	15,250	15,250	30,500	300			30,200			
Fairmont & Baltimore C. & C.	Perry No. 3	15,000	15,000	30,000	200			29,800			
Fairmont & Baltimore C. & C.	Fairmore	25,571	28,869	54,440					39,888	4,545	8,652
Cook C. & C. Co.	Girard	48,214	50,892	99,106	428	128			98,550		
Pittsburg & Fairmont Fuel Co.	Pooz	22,767	17,856	40,623	1,383				39,240		
Pittsburg & Fairmont Fuel Co.	Lucas		2,232	2,232					2,232		
Meadow Brook C. & C. Co.	Erie	21,656	14,616	36,272	750	142			35,380		
Clark Coal Co.	Waldo	21,574	23,145	44,719					44,919		
Cook & Hart C. Co.	Cork	18,450	5,700	24,150		530			23,620		
Rosebud Coal Co.	Rosebud	6,900	6,588	13,488					13,488		
Hutchinson Fuel Co.	Byron No. 1 & 2	11,767	19,661	31,428	500	118	11,600	19,210	6,197	6,197	
Phoenix Coal Mining & Coke Co.	Phoenix		1,321	1,321					1,321		
Solon-Lowery Coal Co.	Solon-Lowery	5,060	20,061	25,061					25,061		
Lukens Coal Co.	Lukens	2,342	7,413	9,755	50	25			9,680		
Chieftain Coal Co.	Chieftain No. 1	1,000	1,678	2,678	1,786	89			803		
Pitcairn Coal Co.	Pitcairn	being	opened								
Totals.		1,025,287	1,083,049	2,108,336	24,820	5,561	103,230	1,974,716	29,201	33,181	62,382
Marion County.											
Fairmont Coal Co.	Murray	65,633	67,792	133,425	2,920	168	29,378	100,959	7,804	10,333	18,137
"	Montana	136,707	101,388	238,095	5,762	1,349	104,994	125,990	31,299	32,341	63,640
"	Aurora		9,568	20,198	220	45		19,933			
"	West Fair Shaft	89,680	104,988	194,678	3,092	853		190,733			
"	O'Donnell	11,192	14,233	25,425				25,425			
"	New England	150,913	154,207	305,120	4,434	1,439	53,155	246,032	19,895	12,422	32,317
"	Gaston	112,560	94,115	206,675	2,800	1,026	50,867	151,882	18,902	12,815	31,717
"	Monongah Nos. 2 & 5	150,271	144,991	295,262	5,460	3,841	120,369	165,592	32,066	40,386	72,462
"	Monongah No. 3	143,231	130,967	274,198			57,087	214,581	19,370	15,018	34,388
"	Monongah No. 6	103,541	94,746	198,287	2,025			196,262			
"	Pennsion	32,042	33,525	65,567		385			635		
"	Marion	8,270	7,989	16,259	168	45	5,568	59,114		2,708	3,343
"	Anderson	39,443	37,023	76,466	1,689	110		74,657			
"	Highland	45,555	50,450	102,005	902	178		100,865			
"	Middleton	41,268	38,581	79,849	982	398		78,469			
"	Chiefton	42,217	43,476	85,693	2,267	328		83,068			
"	Hutchinson	55,678	38,731	94,409	2,150	212	18,678	73,369	5,974	5,332	11,306

Virginia & Pittsburg C. & C. Co.	King	67,620	52,076	119,696	800	1,200	25,263	92,433	6,957	8,657	15,614
George's Creek Coal & Iron Co.	Chatham No. 1 & 2	56,535	39,001	95,536	600	.....	.....	94,936	.....	.....	.....
Federal Coal & Coke Co.	Federal No. 1	15,000	15,000	25,000	.....	.....	.....	25,000	.....	.....	.....
New Central Coal Co.	Stafford	8,035	8,035	16,071	3,125	134	.....	12,812	.....	.....	.....
Kilarn C. & C. Co.	Kilarn	.....	1,000	1,000	.....	300	.....	700	.....	.....	.....
Totals.....		1,379,969	1,288,945	2,668,914	42,485	12,031	405,359	2,149,038	142,902	140,022	282,924
<i>Monongalia County.</i>											
Opekiska C. & C. Co.	Opekiska	25,000	25,000	50,000	.....	.....	16,665	33,334	3,386	3,386	6,772
Fairmont Coal Co.	Beechwood	37,581	41,425	79,006	630	226	34,791	43,359	11,458	9,418	20,876
West Virginia Coal Co.	Richard	.....	7,004	7,004	300	604	3,814	2,286	.....	2,861	.....
Decker's Creek C. & C. Co.	Decker's Cr.	.....	120	120	.....	.....	.....	100	.....	.....	.....
A. C. Fulmer & Co.	Fulmer	5,516	6,428	11,944	13	527	.....	11,404	.....	.....	.....
Totals.....		68,097	79,977	148,074	963	1,357	55,271	90,483	14,844	15,655	30,509
<i>Marshall County.</i>											
Hitchman C. & C. Co.	Hitchman	24,821	24,821	49,642	1,142	.....	.....	48,500	.....	.....	.....
Boggs Run M. & Mfg Co.	Boggs Run	26,506	12,697	39,203	535	1,922	.....	36,746	.....	.....	.....
Whigging Steel & Iron Co.	Benwood	18,321	20,010	38,331	.....	.....	.....	38,331	.....	.....	.....
Glendale Coal Co.	Glendale	40,178	40,179	80,357	2,142	.....	.....	78,215	.....	.....	.....
Mound Coal Co.	Moundsville	40,568	31,175	71,743	2,142	15,358	.....	54,243	.....	.....	.....
Totals.....		150,384	128,882	279,276	5,961	17,280	.....	256,035	.....	.....	.....
<i>Ohio County.</i>											
Jochum & Co.	Central	2,639	2,639	5,338	.....	.....	.....	.....	.....	.....	.....
W. H. Kasley	Whitaker	9,330	7,385	16,715	134	5,336	.....	16,581	.....	.....	.....
Richland Coal Works	Richland	11,071	11,339	22,410	.....	178	.....	22,232	.....	.....	.....
Elm Grove Coal Co.	Elm Grove	25,681	18,418	44,099	1,220	.....	.....	41,907	.....	.....	.....
Reymann Brewing Co.	Manchester	4,482	3,475	7,957	.....	7,957	.....	.....	.....	.....	.....
Wheeling Steam C. Co.	McKinley	19,403	13,966	33,369	44	.....	.....	33,325	.....	.....	.....
La Belle Iron Co.	La Belle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....		72,636	57,252	129,888	1,400	14,443	.....	114,045	.....	.....	.....
<i>Kanawha County.</i>											
Falling Rock Cannel C. Co.	Jones	5,065	3,750	8,816	.....	90	.....	8,726	.....	.....	.....
Keystone Coal Co.	Graham	5,781	12,771	18,552	137	283	.....	18,132	.....	.....	.....
Elk Coal Co.	Queen Shoals	13,735	12,127	25,862	178	.....	.....	25,684	.....	.....	.....
Clendenin C. & C. Co.	Turner	6,609	10,067	16,676	689	223	.....	15,784	.....	.....	.....
Geo. T. Tyler	Peacock	2,145	4,286	6,428	.....	57	.....	6,371	.....	.....	.....
Mill Creek Cannel C. Co.	Mill Creek	2,767	5,463	8,232	.....	.....	.....	8,232	.....	.....	.....
Black Hawk Coal Co.	Black Hawk	1,980	3,960	5,940	35	.....	.....	5,905	.....	.....	.....
Campbells Creek Coal Co.	Calders	21,981	23,123	45,104	243	155	.....	44,706	.....	.....	.....
.....	(o-operative	32,401	42,624	75,025	1,049	268	.....	73,708	.....	.....	.....
Diamond C. Co.	New Diamond	3,000	7,000	10,000	.....	100	.....	9,900	.....	.....	.....

*Estimated.

PRODUCTION OF COAL AND COKE FOR YEAR ENDING JUNE 30th, 1903.

NAME OF COMPANY.	NAME OF MINE.	Coal Production (Tons of 2,240 lbs.)		Distribution of Coal (Tons of 2,240 lbs.)				Production of Coke (Tons of 2,000 lbs.)			
		1st 6 mos.	2nd 6 mos.	Total coal produced for year.	Used in operation of mine.	Furnished local trade and tenants.	Used in coke ovens.	Quantity shipped from mine.	1st 6 mos.	2nd 6 mos.	Total for the year.
Kanawha County.—Continued											
Quincy Coal Co.	Quincy.	6,864	9,738	16,602	200	556		15,846			
Mile Branch C. Co.	Mile Branch.	6,999	10,816	17,815				17,815			
Kanawha & Hocking C. & C. Co.	K. & H. No. 101	10,500	28,843	39,343		446		38,897			
	K. & H. No. 103	7,585	21,482	29,067				29,517			
	K. & H. No. 105	24,529	35,130	59,659		29		59,630			
	K. & H. No. 106	24,781	57,000	81,781		625		81,216			
	K. & H. No. 108	8,835	15,880	24,715				24,715			
	K. & H. No. 109	25,336	31,272	56,608		357		56,251			
	K. & H. No. 110	12,224	22,917	35,141		714		34,427			
	K. & H. No. 119	8,371	9,589	17,960				17,960			
Cannelton Coal Co.	Cannelton No. 2	31,541	62,681	94,222	321	402	33,327	60,172	7,895	16,594	24,489
Shrewsbury & Edwards	Shrewsbury No. 1	12,691	26,500	39,191	2	4		1,636			
The Marnet Co.	Lens Creek No. 1 & 2	12,723	40,858	53,581	822	1,738		36,691			
Winifrede Coal Co.	Butler	1,064	7,099	8,163	86	134		53,361			
	South	45,938	45,146	91,084	400			8,763			
	North	39,328	51,161	90,489	600			90,684			
	West		8,538	8,538				89,889			
Coalburg Colliery Co.	Ronda	5,788	16,538	22,326		229		22,097			
Stevens Coal Co.	Arme	4,645	18,926	18,926		846		18,080			
	Keystone	15,553	45,669	61,222				61,222			
	Empire	18,172	45,181	63,353				63,353			
Dry Branch Coal Co.	Dry Branch Nos. 1, 2 & 3.	2,744	15,397	18,141	117	94		17,870			
Belleclare Coal Co.		just opening									
Cardiff Coal Co.	Oakley		4,557	4,557				4,557			
Cherokee Coal Co.	Cherokee		21,350	21,350	44	134		21,172			
Wake Forest M. Co.	Wake Forest.	2,117	21,452	23,569		400		23,169			
Leewood Colliery Co.	Leewood No. 1 & 2	*	5,000	5,000	100			4,900			
Thistle Coal Co.	Thistle	just opening									
Carbon Coal Co.	North & South	3,067	32,222	35,289	446	134		34,709			
West Virginia Colliery Co.	No. 1	1,652	34,707	36,359		160		36,199			
Raccoon Fork Coal Co.	Raccoon	17,687	17,687	17,687		134		17,553			
United Colliery Co.	Gas	6,697	6,697	6,697		89		6,608			
Cabin Creek M. Co.	Kayford Nos. 1, 2, & 3	7,008	49,488	56,496		379		56,117			
Pine Grove Coal Co.	Peerless	2,348	3,733	6,081				6,081			

*Estimated.

Robinson Coal Co.	Robinson Nos. 4 & 5.	14,818	22,752	37,570	13	1,112	37,557	.....	.....	.....
East Bank C. & C. Co.	Klondike	5,373	5,828	11,201	41	.....	10,048	.....	.....	1,300
Belmont Coal Co.	East Bank	8,929	8,929	14,286	267	401	2,455	300	1,000	.....
Equitable Coal Co.	Coalburg & Lewiston	9,314	27,007	36,321	400	250	.....	.....	.....	.....
The Pawnee Coal Co.	Crown Hill	6,350	18,628	24,978	713	446	23,819	.....	.....	.....
Scranton Spint Coal Co.	Black Cat	1,606	15,178	16,784	71	.....	16,713	.....	.....	.....
Paint Creek Coal Co.	Scranton	18,142	37,971	56,113	536	1,120	54,457	.....	.....	.....
Standard Spint & Gas C. Co.	Paint Creek	9,732	32,416	42,208	357	22	41,829	.....	.....	.....
Grose Colliery Co.	Standard No. 1.	.....	10,336	10,336	.....	178	10,138	.....	.....	.....
Greenbrier Coal Co.	Tomburg	1,425	.....	.....	.....	.....	.....	.....	.....	.....
Chesapeake Mining Co.	Imperial No. 1.	19,302	11,692	13,617	571	178	12,868	.....	.....	.....
Montgomery Coal Co.	Greenbrier Nos. 1 & 2	9,267	4,464	4,464	44	.....	4,420	.....	.....	.....
Kanawha & Coal River Coal Co.	Chesapeake	24,192	51,465	70,707	263	526	69,978	.....	.....	.....
Black Band No. 1	Kanawha	28,950	60,690	89,640	500	550	32,409	.....	.....	.....
Black Band No. 3	Black Band No. 1	6,606	1,786	8,482	825	.....	88,815	.....	.....	.....
Carlin	Black Band No. 3	2,506	10,847	13,353	.....	.....	8,482	.....	.....	.....
Kanawha Fork	Carlin	7,589	7,589	13,353	.....	.....	13,353	.....	.....	.....
Peerless	Kanawha Fork	3,125	3,125	3,125	.....	.....	3,125	.....	.....	.....
Peerless	Peerless	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.	Totals.	577,863	1,300,889	1,878,752	9,888	13,785	35,782	8,195	17,594	25,789
<i>Mason County.</i>										
Hope Salt & Coal Co.	Hope	6,780	2,265	9,075	.....	224	8,851	.....	.....	.....
Mason City M. Co.	McDaniel	2,175	2,175	4,350	.....	.....	4,350	.....	.....	.....
Liverpool Salt & Coal Co.	Jackson Fur	7,539	5,196	12,735	155	652	11,928	.....	.....	.....
Hartford City Salt Co.	Hartford	5,432	4,637	10,069	570	9,499	.....	.....	.....	.....
Consumers C. & M. Co.	N. Castle & Camden.	28,443	25,718	54,161	128	17,107	36,426	.....	.....	.....
Klondike Coal Co.	Klondike	536	.....	536	.....	536	.....	.....	.....	.....
Beech Grove Coal Co.	Beech Grove	4,285	4,285	8,570	142	178	8,250	.....	.....	.....
Thos. D. Harris C. Co.	Blk. Diamond	1,363	1,363	2,786	.....	.....	2,786	.....	.....	.....
Totals.	Totals.	56,563	45,609	102,282	495	28,196	73,091	.....	.....	.....
<i>Putnam County.</i>										
Plymouth C. & M. Co.	Plymouth & Manilla.	26,427	52,215	78,642	1,410	2,142	75,090	.....	.....	.....
Otto-Marnet C. & M. Co.	Pocatatico & Florence	25,248	43,923	69,171	.....	1,680	67,511	.....	.....	.....
Black Betsey C. & M. Co.	Black Betsey	5,337	22,734	28,091	.....	.....	28,091	.....	.....	.....
Oak Forest C. & M. Co.	Oak Forest	1,500	1,500	3,000	.....	.....	3,000	.....	.....	.....
Totals.	Totals.	58,532	120,372	178,904	1,410	3,862	173,692	.....	.....	.....
<i>Lincoln County.</i>										
Rochester Coal Co.	Rochester	5,357	5,357	10,714	178	44	10,492	.....	.....	.....
Lincoln Coal Co.	No. 1.	19,540	23,076	42,616	.....	719	41,897	.....	.....	.....
Totals.	Totals.	24,897	28,433	53,330	178	763	52,389	.....	.....	.....

*Estimated.

PRODUCTION OF COAL AND COKE FOR YEAR ENDING JUNE 30th, 1903.

NAME OF COMPANY.		Coal Production (Tons of 2,240 lbs.)			Distribution of Coal (Tons of 2,240 lbs.)			Production of Coke (Tons of 2,000 lbs.)			
NAME OF MINE.		1st 6 mos.	2nd 6 mos.	Total coal produced for year.	Used in opera- tion of mine.	Furnished local trade and ten- ants.	Used in coke ovens.	Quantity shipped from mine.	1st 6 mos.	2nd 6 mos.	Total for the year.
<i>Fayette County.</i>											
Kanawha & Hocking C. & C. Co.	K. & H. No. 111.....	23,369	50,103	73,472	.....	.....	18,655	54,817	3,044	8,138	11,182
"	K. & H. No. 112.....	25,146	53,292	78,348	.....	.....	5,602	72,746	.....	3,427	3,427
"	K. & H. No. 113.....	5,590	15,589	21,179	.....	.....	.....	21,179	.....	.....	.....
"	K. & H. No. 114.....	10,212	34,916	45,158	.....	.....	.....	30,086	2,631	8,389	11,220
"	K. & H. No. 115.....	30,813	77,391	108,204	.....	.....	15,072	79,277	3,134	16,322	19,456
"	K. & H. No. 117.....	11,400	27,208	38,608	.....	.....	28,957	38,608	.....	.....	.....
Columbus Iron & Steel Co.	No. 1.....	10,000	14,306	24,306	400	.....	.....	23,906	.....	.....	.....
Kanawha Gas Coal Co.	Kanawha Gas.....	25,134	79,227	104,361	.....	.....	.....	104,361	.....	.....	.....
Boomer C. & C. Co.	Boomer No. 1.....	11,588	32,925	44,513	396	123	.....	63,494	.....	.....	.....
"	Boomer No. 2.....	16,740	25,763	42,503	282	540	.....	41,681	.....	.....	.....
"	Boomer No. 3.....	10,973	27,391	38,364	215	.....	.....	38,149	.....	.....	.....
W. R. Johnson & Co.	Oakland.....	5,111	22,643	27,754	8	89	.....	27,657	.....	.....	.....
Morris Creek C. Co.	just be- ing opened	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gordon C. & C. Co.	Eureka No. 5.....	.....	15,625	15,625	843	447	.....	14,375	.....	.....	.....
"	Eureka No. 1 & 2.....	.....	28,084	28,084	.....	.....	.....	28,084	.....	.....	.....
Meece Coal & C. Co.	Meece No. 2.....	23,323	34,640	77,963	475	.....	.....	77,488	.....	.....	.....
"	Meece No. 5.....	8,046	24,399	32,445	.....	416	.....	32,029	.....	.....	.....
Economy Fuel Co.	Economy.....	446	9,374	9,820	88	446	.....	9,286	.....	.....	.....
W. R. Johnson.	Crescent No. 1.....	4,360	15,756	20,116	535	.....	14,950	4,651	1,800	8,100	9,900
"	Crescent Gas No. 2.....	2,683	8,245	10,928	.....	.....	7,211	3,767	1,300	3,610	4,910
"	Crescent No. 5.....	11,487	25,827	37,314	.....	504	.....	36,810	.....	.....	.....
The Curver Bros. Co.	Eagle & California.....	6,569	13,303	19,872	1,116	.....	8,864	9,536	2,600	4,720	7,320
"	Edgewater No. 1.....	4,938	15,000	19,938	.....	892	.....	19,046	.....	.....	.....
"	Edgewater No. 5.....	5,268	19,643	24,911	.....	.....	.....	24,822	.....	.....	.....
"	Edgewater No. 2.....	3,648	13,988	17,636	.....	89	.....	17,636	.....	.....	.....
"	Eagle No. 3.....	11,214	22,918	34,132	.....	.....	.....	16,472	.....	.....	.....
Gordon Coal & Coke Co.	St. Clair No. 1.....	3,000	10,393	13,393	.....	.....	.....	16,472	3,300	8,000	11,300
"	St. Clair No. 2.....	10,000	16,786	26,786	.....	.....	.....	10,000	1,174	4,606	5,870
Diamond Colliery Co.	Diamond.....	not in operation	.....	.....	.....	.....	.....	13,200	2,535	4,904	7,439
The Mt. Carbon Co. Ltd.	Vulcan.....	11,448	45,253	56,701	371	2,051	38,844	15,435	5,066	21,381	26,447
"	South.....	1,714	10,434	12,148	.....	.....	6,074	6,074	559	3,593	4,152
"	Excelsior.....	5,893	17,014	22,907	22	100	.....	22,785	.....	.....	.....
Gt. Kanawha Colliery Co. Ltd.	Digby.....	10,940	30,298	41,238	.....	.....	.....	41,238	.....	.....	.....
"	No. 1.....	9,697	25,359	34,456	1,027	1,115	18,205	14,109	3,031	9,205	12,236
"	Eagle.....	1,231	6,678	7,909	.....	.....	.....	7,909	.....	.....	.....
"	No. 5.....	5,501	4,804	10,305	.....	.....	.....	10,305	.....	.....	.....
Cardiff Coal Co.	Kimberly.....	.....	6,802	6,802	1,739	37	67,172	6,802	12,131	24,734	36,865
The Gauley Mountain C. Co.	Gauley Mt. No. 1 & 2.....	98,295	111,257	209,462	.....	.....	.....	140,512	.....	.....	.....

PRODUCTION OF COAL AND COKE FOR YEAR ENDING JUNE 30th, 1903.

NAME OF COMPANY.	NAME OF MINE.	Coal Production (Tons of 2,240 lbs.)			Distribution of Coal (Tons of 2,240 lbs.)			Production of Coke (Tons of 2,000 lbs.)			
		1st 6 mos.	2nd 6 mos.	Total coal produced for year.	Used in opera- tion of mine.	Furnished local trade and ten- ants.	Used in coke ovens.	Quantity shipped from mine.	1st 6 mos.	2nd 6 mos.	Total for the year.
<i>McDowell County.—Continued</i>											
Flournoy Colliery Co.....	Flournoy No. 2.....		2,899	2,899	22	35		2,842			
Hensley Coal Co.....	Hensley.....		8,893	15,714	102	134		15,478			
Mohawk C. & C. Co.....	Mohawk.....	6,821	3,436	3,936	22	26		3,888			
Totals.....		2,476,063	2,773,850	5,249,913	42,864	28,197	1,486,348	3,692,504	466,692	550,296	1,016,988
<i>Mercer County.</i>											
Mill Creek C. & C. Co.....	Sterling.....	51,746	61,471	113,217	1,150	900	45,523	65,644	13,934	18,734	32,668
Coaldale C. & C. Co.....	Coaldale.....	72,394	83,894	156,288	1,039	1,000	20,000	128,229	7,963	10,917	18,900
Buckeye C. & C. Co.....	Buckeye.....	43,454	54,762	98,216	1,108	892	23,430	72,266	5,053	11,024	16,077
Caswell Creek C. & C. Co.....	Caswell.....	94,527	108,255	202,782	500	1,100	44,390	156,882	11,544	17,989	29,533
Booth-Bowen C. & C. Co.....	Booth-Bowen.....	73,737	92,727	166,464	300	1,245	34,754	130,165	8,118	12,316	20,434
Louisville C. & C. Co.....	Louisville.....	53,770	56,363	110,133	.....	919	37,129	72,085	10,215	14,540	24,755
The Goodwill C. & C. Co.....	Goodwill.....	28,470	34,404	62,874	300	200	17,145	45,229	4,119	7,883	12,002
Pinnacle C. & C. Co.....	North & South.....	37,283	66,598	103,881	250	450	11,598	91,583	.....	7,568	.....
Crane Creek C. & C. Co.....	Crane Cr. No. 1 & 2.....	32,141	63,578	95,719	750	400	.....	.....	.....	.....	.....
Sagamore C. & C. Co.....	Sagamore.....	20,450	36,500	57,450	400	500	8,400	94,569	600	5,000	5,600
Crystal C. & C. Co.....	Crystal.....	16,863	27,105	43,968	.....	.....	.....	43,968	.....	.....	.....
The Thomas Coal Co.....	Thomas.....	18,882	35,149	54,031	64	350	.....	53,617	.....	.....	.....
Yukon Coal Co.....	Yukon.....	1,500	7,000	8,500	.....	300	.....	8,200	.....	.....	.....
Totals.....		546,197	727,806	1,274,063	5,881	8,256	249,279	1,010,587	61,566	106,001	167,567
<i>Mingo County.</i>											
Pearl Coal Mining Co.....	Camp Branch.....	13,125	10,432	23,557	88	88	.....	23,381	.....	.....	.....
" " " " " " " " " "	Freeport.....	4,152	2,638	6,790	93	89	.....	6,608	.....	.....	.....
" " " " " " " " " "	Olympia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" " " " " " " " " "	Farland.....	8,629	14,223	23,152	.....	134	.....	23,018	.....	.....	.....
" " " " " " " " " "	Mingo.....	10,438	13,486	23,424	88	93	.....	24,243	.....	.....	.....
Red Jacket C. & C. Co.....	Logan.....	45,807	46,787	92,654	900	1,000	.....	90,754	.....	.....	.....
" " " " " " " " " "	Rutherford.....	34,840	48,488	83,778	.....	600	.....	83,178	.....	.....	.....
" " " " " " " " " "	Maritime.....	23,190	25,431	49,121	500	500	.....	48,121	.....	.....	.....
" " " " " " " " " "	Red Jacket.....	51,592	105,104	106,896	1,000	1,000	.....	104,896	.....	.....	.....
" " " " " " " " " "	Lick Fork.....	47,597	55,120	102,917	.....	1,030	.....	101,887	.....	.....	.....
" " " " " " " " " "	Grapevine.....	34,572	36,505	71,077	.....	700	.....	70,377	.....	.....	.....
Thacker Coal & Coke Co.....	Thacker No. 1 & 2.....	58,684	86,698	146,722	2,000	1,000	.....	145,722	.....	.....	.....
Lynn C. & C. Co.....	Lynn.....	16,438	14,155	30,593	.....	100	.....	30,493	.....	.....	.....
Glen Alum C. Co.....	Glen Alum.....	27,976	47,440	75,416	1,100	600	.....	73,716	.....	.....	.....

		3,446	4,667	8,113	100	100	7,913		
		just	being open ed						
Nolan.....	War Eagle.....	3,446	4,667	8,113	100	100	7,913	.....	.....
War Eagle C. Co.....	Hatfield.....	.....	4,000	4,000	.....	.....	4,000	.....	.....
Hatfield Colliery Co.....	Jackson.....	3,000	6,000	9,000	100	100	8,000	.....	.....
Jackson Coal Co.....	Mate Creek.....	.....	53	53	.....	.....	53	.....	.....
Mate Creek Coal Co.....	Marvin.....	just	being open ed	4,414	.....	.....	4,414	.....	.....
Marvin Coal Co.....	Pappoose.....	.....	4,414	4,414	.....	.....	4,414	.....	.....
Pappoose Coal Co.....	Margaret.....	just	being open ed	1,697	.....	.....	1,697	.....	.....
Margaret Coal Co.....	Star.....	just	being open ed	90	.....	.....	90	.....	.....
Star Coal Co.....	Cedar.....	.....	1,697	1,697	.....	.....	1,697	.....	.....
Cedar Coal Co.....	Merrimac.....	.....	90	90	.....	.....	90	.....	.....
Merrimac C. & C. Co.....		.....	.....	.....	.....	.....	.....	.....	.....
Totals.....		384,746	479,718	864,464	5,869	7,134	851,461	.....	.....
<i>Barbour County.</i>									
Junior Coal Co.....	Junior.....	27,783	32,119	59,902	280	755	32,033	9,258	20,991
Philippi C. M. Co.....	Philippi Nos. 1, 2 & 3.....	35,823	32,322	68,145	3,300	182	64,573	.....	.....
Tyburns River Coal Co.....	Arden.....	19,892	16,048	35,940	850	500	34,500	.....	.....
Southern C. & Trans. Co.....	Berryburg No. 1.....	51,400	99,709	151,190	5,767	542	144,800	.....	.....
Laurel Creek C. Co.....	Laurel Creek.....	11,489	9,882	21,371	50	30	21,321	.....	.....
The Century Coal Co.....	Century Shaft No. 1.....	53,942	73,135	147,077	2,413	604	144,060	.....	.....
Valley C. & C. Co.....	Valley.....	11,071	14,419	25,490	209	382	24,899	.....	.....
Freeport Smokeless Coal & Coking Co.....	Lillian.....	.....	9,000	9,000	.....	.....	9,000	.....	.....
The Pennsylvania C. & M. Co.....	Candaco.....	2,000	1,800	1,800	.....	10	1,790	.....	.....
Candace C. & C. Co.....		.....	4,000	6,000	.....	100	5,900	.....	.....
Totals.....		233,490	292,434	525,924	12,909	3,125	483,055	9,258	20,991
<i>Grant County.</i>									
Davis C. & C. Co.....	No. 22 Shaft.....	6,764	8,404	15,168	7,400	180	7,588	.....	.....
Marion C. & C. Co.....	No. 33 Shaft.....	2,891	9,230	12,121	1,600	.....	10,521	.....	.....
Totals.....		9,655	18,834	28,489	9,000	230	19,259	.....	.....
<i>Mineral County.</i>									
Davis C. & C. Co.....	No. 19.....	558	558	558	48	7	453	.....	.....
.....	No. 18.....	29,017	33,100	62,117	.....	53	62,664	.....	.....
.....	No. 8.....	31,511	18,207	49,718	.....	101	49,617	.....	.....
.....	No. 20.....	663	6,077	6,740	.....	.....	6,740	.....	.....
.....	No. 9.....	.....	11,547	11,547	.....	15	11,532	.....	.....
.....	No. 6.....	126,492	154,346	282,838	155	1,905	280,778	.....	.....
Smith Coal Co.....	Smith.....	21,973	12,770	34,743	.....	.....	34,743	.....	.....
Piedmont & Potomac C. Co.....	Virginia.....	15,000	15,000	30,000	.....	200	29,800	.....	.....
Big Vein Coal Co.....	Big Vein.....	10,540	13,826	24,366	.....	.....	24,366	.....	.....
Taylor Coal Co.....	Taylor.....	2,400	2,400	4,800	5	43	4,752	.....	.....

*Estimated.

PRODUCTION OF COAL AND COKE FOR YEAR ENDING JUNE 30th, 1903.

NAME OF COMPANY.	NAME OF MINE.	Coal Production (Tons of 2,240 lbs.)		Distribution of Coal (Tons of 2,240 lbs.)			Production of Coke (Tons of 2,000 lbs)				
		1st 6 mos.	2nd 6 mos.	Total coal produced for year.	Used in operation of mine.	Furnished local trade and tenants.	Used in coke ovens.	Quantity shipped from mine.	1st 6 mos.	2nd 6 mos.	Total for the year.
<i>Mineral County—Continued.</i>											
Masteller Coal Co.	Hampshire 4 ft.	238,754	275,828	514,582	258	2,324		6,555			
Totals.								6,555			
<i>Preston County.</i>											
The Austen C. & C. Co.	Austen No. 1 & 2	40,500	40,500	81,000	600	1,000	30,800	48,600	10,267	10,266	20,533
Hamilton C. & C. Co.	Newburg	4,542	18,417	22,959	1,000	100	5,484	16,375		2,750	2,750
Gorman C. & C. Co.	Gorman No. 1 & 2	14,000	12,000	26,000	1,350	250		24,400			
Irona Coal Co.	Irona No. 1 & 2	54,889	43,715	98,604	1,989	4,296		92,329			
Merchants Coal Co.	North Side or No. 1	2,250	18,798	21,048	500			20,548			
	South Side	48,556	96,064	144,620	20,000	1,000		123,620			
Oakland C. & C. Co.	Corinth	13,477	16,473	29,950	1,758	685	18,904	8,603	4,076	7,268	11,344
Kingwood Coal Co.	Howesville.	14,499	15,077	29,576	300	70		29,206			
Hite C. & C. Co.	Dixie	9,000	12,000	21,000	150	96		20,754			
Orr C. & C. Co.	Vulcan	12,129	15,463	27,592	600	216		26,776			
The Manufacturers C. & C. Co.	Victoria No. 1	10,000	12,000	22,000	1,307	110		20,673			
Irontale Valley C. Co.	Shrader	1,000	12,976	13,976	153			13,823			
Atlantic C. & C. Co.	Atlantic No. 1 & 2	12,924	23,362	36,316	2,008	180		34,128			
Totals.		237,776	336,965	574,741	31,715	8,003	55,188	479,835	14,343	20,284	34,627
<i>Randolph County.</i>											
Junior Coal Co.	Coalton No. 1 & 2	56,802	51,153	108,045	48	1,108		106,889			
"	Grassy Run.	"	3,379	3,379				3,379			
"	Harding	44,125	50,404	94,529	382	364	50,746	43,037	17,480	22,269	39,749
Maryland Smokeless C. Co.	Weaver No. 1	39,665	55,661	95,326	1,697	2,410	63,125	28,184	21,400	25,734	47,134
"	Weaver No. 2	35,223	40,366	75,589			45,000	30,589	16,070	17,434	33,504
"	Weaver No. 3	"	3,219	3,219	100			3,119	1		
Ritter Coal Co.	Klondyke	1,200	7,200	8,400				8,400			
Totals.		177,105	211,382	388,487	2,137	3,882	158,871	223,507	54,950	65,437	120,387
<i>Taylor County.</i>											
Grafton C. & C. Co.	Sandlick	24,632	34,642	59,274		180		58,494			
Flemington C. & C. Co.	Flemington	16,256	23,023	39,279	1,948	359		36,972			
Davis C. & C. Co.	No. 41	23,446	23,446	46,892	106	223		45,215			
L. B. Brydon	Foster	5,193	7,373	12,566				12,566			
Rosemont Coal Co.	Rosemont	42,719	22,831	65,550		180		65,370			

POTOMAC DISTRICT.

(Counties of Mineral, Grant and Tucker.)

Davis C. & C. Co., 6 mines in Mineral, 2 mines in Grant & 6 mines in Tucker	1,341,265
Cumberland Coal Co	179,139
Smith Coal Co	34,743
Piedmont & Potomac Coal Co.....	30,000
Big Vein Coal Co	24,366
Masteller Coal Co	6,555
Taylor Coal Co	4,800
Marion C. & C. Co	1,200
Total	1,622,068

MONONGAHELA DISTRICT.

(Counties of Barbour, Harrison, Marion, Monongalia, Preston, Randolph and Taylor.)

Fairmont Coal Co, 15 mines in Harrison, 17 mines in Marion & 1 mine in Monongalia	3,580,604
Clarksburg Fuel Co	477,176
Junior Coal Co, 3 mines in Randolph & 1 in Barbour.....	265,855
Maryland Smokeless Coal Co.....	174,134
Merchants Coal Co.....	165,668
Pittsburg & Fairmont Coal Co.....	155,700
Southern Coal & Transportation Co	151,199
Century Coal Co	147,077
Virginia & Pittsburg C. & C. Co.....	119,696
Cook Coal & Coke Co.....	99,106
Irona Coal Co	98,614
Georges Creek Coal & Iron Co.....	95,536
Austen Coal & Coke Co.....	81,000
Philippi Coal Mining Co	68,145
Rosemont Coal Co	65,550
Grafton Coal & Coke Co	58,674
Fairmont & Baltimore C. & C. Co.....	54,440
Opekiska C. & C. Co	50,000
Davis Coal & Coke Co.....	45,544
Clark Coal Co	44,919
T. B. Davis	42,911
Pittsburg & Fairmont Fuel Co.....	42,855
Flemington Coal & Coke Co.....	39,279
Atlantic Coal & Coke Co.....	36,316
Meadowbrook Coal & Coke Co	36,272
Tygarts River Coal Co	35,940
Hutchinson Fuel Co	31,428
Oakland Coal & Coke Co.....	29,950
Kingwood Coal Co	29,576
Orr Coal & Coke Co.....	27,592
Gorman Coal & Coke Co.....	26,000
Valley Coal & Coke Co.....	25,490
Solon-Lowery Coal Co	25,061
Federal Coal & Coke Co.....	25,000
Cook & Hart Coal Co.....	24,150
Hamilton Coal & Coke Co.....	22,959
Manufacturers Coal & Coke Co.....	22,090
Laurel Creek Coal Co	21,371
Hite Coal & Coke Co	21,000
New Central Coal Co.....	16,071
Irondale Valley Coal Co.....	13,976
Rose Bud Coal Co	13,488
L. B. Brydon	12,566

MONONGAHELA DISTRICT—Continued.

A. C. Fulmer & Co	11,944
Lukens Coal Co	9,755
Freeport Smokeless Coal & Coking Co.....	9,000
Ritter Coal Co	8,400
West Virginia Coal Co.....	7,004
Candace Coal Co	6,000
Chieftain Coal Co	2,678
Pennsylvania Coal & Mining Co	1,800
Phoenix Coal Mining & Coke Co.....	1,321
Kilarm Coal Co	1,000
Deckers Creek Coal & Coke Co.....	120
Total	6,679 000

WHEELING DISTRICT.

(Counties of Brooke, Hancock, Marshall and Ohio.)

Glendale Coal Co	80,357
Mound Coal Co	71,743
The Marquet Coal Co	59,781
Hitchman Coal & Coke Co.....	49,642
Elm Grove Coal Co	44,099
Boggs Run Mining & M'fg. Co.....	39,203
Wheeling Steel & Iron Co	38,331
Wheeling Steam Coal Co	33,369
Richland Coal Works	22,410
W. H. Kasley	16,715
Wiota Coal Co	15,257
M. M. Cullen	10,714
Reymann Brewing Co	7,957
Wells Coal Co	7,143
Jochum & Co	5,338
The Lewis Mines	1,330
Panhandle Coal Co	536
Total	503,925

KANAWHA-NEW RIVER DISTRICT.

(Counties of Fayette, Kanawha, Lincoln, Mason, Nicholas, Putnam and Raleigh.)

Kanawha & Hocking Coal & Coke Co (8 mines in Kanawha and 6 in Fayette)	709,753
Gauley Mountain Coal Co	209,462
Collins Colliery Co	207,220
Winifrede Coal Co	198,874
Sun Coal & Coke Co	193,403
W. P. Rend	157,546
Harvey Coal & Coke Co	150,000
Boomer Coal & Coke Co	145,380
Stevens Coal Co	143,501
Campbells Creek Coal Co.....	120,129
Kanawha & Coal River Coal Co.....	119,064
The Carver Brothers Co	116,489
Dunn Loop Coal & Coke Co.....	115,632
Mecca Coal & Coke Co.....	110,408
Raleigh Coal & Coke Co	109,284
McKell Coal & Coke Co.....	104,578
Kanawha Gas Coal Co	104,361
Greenwood Coal Co	99,283
Macdonald Colliery Co	99,023
Gordon Coal & Coke Co	96,188
Cannelton Coal Co	94,222
The Great Kanawha Colliery Co., Ltd.....	93,908

KANAWHA-NEW RIVER DISTRICT—Continued.

Star Coal & Coke Co.	93,314
The Marmet Co.	92,832
The Mt. Carbon Co., Ltd.	91,756
The White Oak Fuel Co.	91,403
Red Ash Coal Co.	91,226
Prudence Coal Co.	86,218
Rush Run C. & C. Co.	83,332
Sugar Creek Coal & Coke Co.	79,050
Plymouth Coal & Mining Co.	78,642
Chesapeake Mining Co.	70,767
Otto-Marmet Coal & Mining Co.	69,171
W. R. Johnson.	68,408
Ephraims Creek Coal & Coke Co.	65,943
Turkey Knob Coal Co.	57,867
Cabin Creek Mining Co.	56,496
Scranton Splint Coal Co.	56,113
Blume Coal & Coke Co.	55,924
The Wright Coal & Coke Co.	54,811
Consumers Coal & Mining Co.	54,161
The Low Moor Iron Co.	52,296
Nuttallburg Coal & Coke Co.	49,792
Robinson Coal Co.	48,771
Longdale Iron Co.	45,800
Beechwood Coal & Coke Co.	44,545
Lincoln Coal Co.	42,616
Elk Coal Co.	42,538
Paint Creek Coal Co.	42,208
The Thurmond Coal Co.	42,130
Whipple Colliery Co.	39,305
West Virginia Colliery Co.	36,359
Brooklyn Coal Co.	36,352
Belmont Coal Co.	36,321
Quinnimont Coal Co.	35,652
Carbon Coal Co.	35,289
Brown Coal Co.	34,000
Montgomery Coal Co.	33,459
Beury Coal & Coke Co.	33,025
Chapman Coal & Coke Co.	32,600
Victoria Coal & Coke Co.	31,143
Fire Creek Coal & Coke Co.	28,904
Black Betsey Coal & Mining Co.	28,091
Alaska Coal & Coke Co.	27,847
W. R. Johnson & Co.	27,754
Laurel Creek Coal Co.	27,719
Piney Colliery.	26,882
Equitable Coal Co.	24,978
Columbus Iron & Steel Co.	24,306
New Castle Coal Co.	23,988
Wake Forest Mining Co.	23,569
Ballinger Coal Co.	23,524
Coalburg Colliery Co.	22,326
Cherokee Coal Co.	21,350
Royal Coal & Coke Co.	20,897
Echo Coal & Coke Co.	20,684
Big Bend Coal Co.	19,222
Keystone Coal Co.	18,552
Stonewall Coal Co.	18,252
Dry Branch Coal Co.	18,141
Mile Branch Coal Co.	17,815

KANAWHA-NEW RIVER DISTRICT—Continued.

Raccoon Fork Coal Co	17,687
Smokeless Coal Co	17,076
The Pawnee Coal Co	16,784
Quincy Coal Co	16,602
Michigan Coal Co	14,952
Rothwell Coal Co	14,648
East Bank Coal & Coke Co.....	14,286
Lanark Fuel Co	13,962
Imperial Colliery Co	13,617
Elmo Coal & Coke Co	13,000
Liverpool Salt & Coal Co	12,735
Fayette Coal & Coke Co	11,807
Cardiff Coal Co. (1 mine in Kanawha and 1 in Fayette).....	11,359
Boone Coal & Coke Co.....	11,317
Rochester Coal Co	10,714
Standard Splint & Gas Coal Co.....	10,336
Hartford City Mining Co.....	10,069
Robins Coal Co	10,000
Diamond Coal Co	10,000
Newlyn Coal & Coke Co	9,993
Economy Fuel Co	9,820
Hope Salt & Coal Co	9,075
Falling Rock Cannel Coal Co.....	8,816
Gamoca Coal Co	8,638
Beech Grove Coal Co	8,570
Mill Creek Cannel Coal Co	8,232
Bell Creek Coal Co	7,345
United Colliery Co	6,697
Geo. T. Tyler	6,428
Pine Grove Coal Co	6,081
New River Colliery Co.....	6,000
Black Hawk Coal Co.....	5,940
Cunard Coal Co	5,632
Leewood Colliery Co	5,000
Greenbrier Coal Co	4,464
Mason City Mining Co	4,350
West Virginia Peerless Coal Co.....	3,125
Oak Forest Coal & Mining Co	3,000
Thos. D. Harris Coal Co.....	2,786
The Isabel Coal & Coke Co	2,760
Shrewsbury & Edwards	1,642
Klonkike Coal Co	536
The Arminius Coal Co	300
Total	6,540,325

NORFOLK & WESTERN DISTRICT.

(Counties of McDowell, Mercer and Mingo.)

Norfolk Coal & Coke Co	591,982
Red Jacket Coal & Coke Co	506,443
Crozer Coal & Coke Co.....	274,381
Houston Coal & Coke Co.....	272,767
Turkey Gap Coal & Coke Co.....	254,352
The Empire Coal & Coke Co	253,607
Pulaski Iron Co.	238,000
Powhatan Coal & Coke Co.....	210,495
Upland Coal & Coke Co.....	206,464
Ashland Coal & Coke Co.....	205,095
Caswell Creek Coal & Coke Co.....	202,782

NORFOLK & WESTERN DISTRICT—Continued.

American Coal Co (Pinnacle & Crane Creek).....	199,600
Elkhorn Coal & Coke Co.....	181,484
Lynchburg Coal & Coke Co.....	180,997
Booth-Bowen Coal & Coke Co.....	166,464
Shamokin Coal & Coke Co.....	165,961
Gilliam Coal & Coke Co.....	157,705
Algoma Coal & Coke Co.....	157,631
Coaldale Coal & Coke Co.....	156,288
McDowell Coal & Coke Co.....	147,013
Thacker Coal & Coke Co.....	146,722
Peerless Coal & Coke Co.....	142,824
Eureka Coal & Coke Co.....	142,217
Greenbrier Coal & Coke Co.....	138,821
Elk Ridge Coal & Coke Co.....	130,174
Arlington Coal & Coke Co.....	126,414
Roanoke Coal & Coke Co.....	125,308
Bottom Creek Coal & Coke Co.....	120,398
Shawnee Coal & Coke Co.....	119,283
Mill Creek Coal & Coke Co.....	113,217
Keystone Coal & Coke Co.....	112,720
Louisville Coal & Coke Co.....	110,133
Indian Ridge Coal & Coke Co.....	106,165
Tidewater Coal & Coke Co.....	102,215
Buckeye Coal & Coke Co.....	98,696
Rolfe Coal & Coke Co.....	88,190
Pearl Coal Mining Co	77,923
Glen Alum Coal Co.....	75,416
Goodwill Coal & Coke Co.....	62,874
Sagamore Coal & Coke Co.....	57,450
The Thomas Coal Co.....	54,031
Crystal Coal & Coke Co.....	43,968
Tug River Coal & Coke Co.....	41,901
Big Sandy Coal & Coke Co.....	38,036
Lynn Coal & Coke Co.....	30,593
Twin Branch Mining Co.....	27,311
Big Four Coal & Coke Co.....	22,338
Pocahontas Collieries Co	18,720
Cletus Coal & Coke Co.....	17,359
Black Stone Mining Co	17,165
Cherokee Colliery Co	16,670
Vaughan Coal & Coke Co	16,203
Antler Coal & Coke Co.....	16,071
Hensley Coal Co	15,714
Davy-Crockett Coal & Coke Co	14,196
Maher Coal & Coke Co.....	12,500
Short Creek Coal & Coke Co.....	12,098
Jackson Coal Co	9,000
Yukon Coal Co	8,500
Nolan Coal Co	8,113
Flournoy Colliery Co	7,032
Pappoose Coal Co	4,414
Hatfield Colliery Co	4,000
Mohawk Coal & Coke Co	3,936
Cedar Coal Co	1,697
Merrimac Coal Co	90
Mate Creek Coal Co	53

Total 7,388,380

*COMPARATIVE STATEMENT OF THE PICK AND MACHINE
MINED COAL, BY COUNTIES, FOR 1903.*

DISTRICT.	COUNTY.	Pick mined coal (Tons of 2,240 lbs.)	Machine mined coal (Tons of 2,240 lbs.)	Total (Tons of 2,240 lbs.)
First	Brooke	24,266		24,266
First	Hancock	23,683	46,812	70,495
First	Harrison	606,952	1,501,384	2,108,336
First	Marion	1,354,706	1,314,208	2,668,914
First	Monongalia	131,970	16,104	148,074
First	Marshall	76,945	202,331	279,276
First	Ohio	129,888		129,888
Second	Kanawha	1,028,380	849,372	1,878,752
Second	Mason	102,282		102,282
Second	Putnam	171,122	7,782	178,904
Second	Lincoln	53,330		53,330
Third	Fayette	2,945,894	1,129,430	4,075,324
Third	Raleigh	244,088		244,088
Third	Nicholas	7,199	446	7,645
Fourth	McDowell	5,110,045	139,868	5,249,913
Fourth	Mercer	1,223,308	50,695	1,274,003
Fourth	Mingo	596,346	268,118	864,464
Fifth	Barbour	161,269	364,655	525,924
Fifth	Grant	1,200	27,289	28,489
Fifth	Mineral	514,024	558	514,582
Fifth	Preston	277,904	296,747	574,741
Fifth	Randolph	331,291	57,196	388,487
Fifth	Taylor	240,253	24,271	264,524
Fifth	Tucker	1,063,369	15,628	1,078,997
	Totals	16,420,804	6,312,894	22,733,698
	Small Mines	180,000		180,000
	Totals	16,600,804	6,312,894	22,913,698

*SUMMARY OF THE PRODUCTION OF MACHINE MINED COAL
IN THE STATE FOR THE YEAR ENDING JUNE 30th, 1903.*

DISTRICT.	COUNTY.	No. firms us- ing machin- es.	No. of machines.	Tons of coal produced by machines (Tons of 2,240 lbs.)	No. of machine miners.	No. of machine runners and helpers.	Total No. of machine men employ- ed.
First	Hancock	1	4	46,812	45	8	53
First	Harrison	32	139	1,501,384	846	197	1,043
First	Marion	14	90	1,314,208	590	220	810
First	Monongalia	3	10	16,104	60	13	73
First	Marshall	4	18	202,331	250	48	298
Second	Kanawha	31	127	849,372	1,015	237	1,252
Second	Putnam	1	2	7,782	20	5	25
Third	Fayette	53	215	1,129,430	1,230	335	1,565
Third	Nicholas	2	3	446	20	6	26
Fourth	McDowell	10	33	139,868	156	50	206
Fourth	Mercer	2	5	50,695	40	8	48
Fourth	Mingo	11	34	268,118	229	75	304
Fifth	Barbour	4	36	364,655	225	54	279
Fifth	Grant	2	6	27,289	24	12	36
Fifth	Mineral	1	4	558			
Fifth	Preston	8	55	296,747	297	73	370
Fifth	Randolph	1	5	57,196	40	8	48
Fifth	Taylor	1	2	24,271	25	5	30
Fifth	Tucker	1	7	15,628	53	12	65
	Totals	181	795	6,312,894	5,165	1,366	6,531

COMPANIES OPERATING MINE MACHINES AND THE QUANTITY OF COAL PRODUCED BY THEM FOR
THE YEAR ENDING JUNE 30th, 1903.

NAME OF COMPANY.	NAME OF MINE.	No. of mine ma- chines.	Tons of coal pro- duced by machine (tons of 2,240 lbs).	No. of machine miners.	No. of machine runners and helpers.	Total No. men em- ployed by machine mining.
<i>Hancock County.</i>						
The Marquet Coal Co.....	Marquet.....	4	46,812	45	8	53
Totals.....		4	46,812	45	8	53
<i>Harrison County.</i>						
Clarksburg Fuel Co.....	Pk. No. 1.....	8	120,219	50	16	66
" " " " " "	Two Lick.....	2	49,197	24	4	28
" " " " " "	Interstate.....	4	28,749	22	6	28
" " " " " "	O'Neil No. 1.....	8	67,964	38	12	50
" " " " " "	O'Neil No. 2.....	5	80,232	36	48	50
Fairmont Coal Co.....	Enterprise.....	5	84,436	40	10	50
" " " " " "	Viropia.....	3	56,243	25	8	33
" " " " " "	Ehlen.....	4	52,816	28	6	34
" " " " " "	Solon.....	3	42,540	26	6	32
" " " " " "	Gypsy.....	14	152,320	64	16	80
" " " " " "	Harbert.....	3	38,088	13	4	17
" " " " " "	Maulsby.....	3	43,148	22	4	26
" " " " " "	Meadow Brook.....	2	not yet in use.			
" " " " " "	Farmington.....	5	43,465	25	8	33
" " " " " "	Glen Falls.....	3	12,607	10	2	12
" " " " " "	Dunham.....	1	21,228	16	2	18
" " " " " "	Lynch.....	1	78,091	41	12	53
" " " " " "	Columbia.....	7	82,786	40	10	50
" " " " " "	Ocean.....	9	13,834	9	13	50
" " " " " "	Riverdale.....	7	95,200	45	6	51
" " " " " "	Perry No. 1.....	3	30,500	20	4	24
" " " " " "	Perry No. 2.....	2	30,000	20	4	22
" " " " " "	Perry No. 3.....	1	30,000	35	2	39
" " " " " "	Girard.....	2	99,106	40	4	44
" " " " " "	Pooz.....	4	38,392	40	4	44
" " " " " "	Lucas.....	1	2,232	5	2	7
" " " " " "	Erie.....	8	36,272	25	35	48
" " " " " "	Waldo.....	6	44,919	40	8	48
" " " " " "	Byron No. 1 & 2.....	3	29,903	25	6	31
" " " " " "	Phoenix.....	1	1,321	3	2	5
" " " " " "	Solon-Lowery.....	5	25,061	50	5	55
<i>Pittsburgh & Fairmont Co. Co.</i>						
Cook Coal & Coke Co.....						
Pittsburg & Fairmont Fuel Co.....						
<i>Meigs County.</i>						
Clark Coal Co.....						
Hitchinson Fuel Co.....						
Phoenix Coal Mining & Coke Co.....						
Solon-Lowery Coal Co.....						

Lukens Coal Co.	Lukens Chiefain No. 1.	3	515 not yet in use.	1	2	3
Chiefain Coal Co.	Chiefain No. 1.	139	1,501,384	846	197	1,043
Totals.....						
<i>Marion County.</i>						
Fairmont Coal Co.	Murray	6	110,869	48	10	58
" "	Montana	4	56,014	18	6	24
" "	West Fair Shaft	4	58,362	20	6	26
" "	New England	8	159,501	60	25	85
" "	Gaston	2	56,676	9	4	13
" "	Monongah No. 2 & 5	7	188,094	100	12	112
" "	Monongah No. 3	6	155,701	90	12	102
" "	Monongah No. 6	5	188,511	8	90	98
" "	Anderson	9	65,023	35	9	44
" "	Highland	4	3,918	.....	.....	.....
" "	Middleton	4	66,274	35	6	41
" "	Chifton	4	68,568	35	6	41
George's Creek Coal & Iron Co.	Chatham No. 1 & 2	19	95,536	100	20	120
Federal Coal & Coke Co.	Federal No. 1	7	25,000	14	8	22
New Central Coal Co.	Stafford	5	16,071	18	6	24
Totals.....		90	1,314,208	540	220	810
<i>Monongalia County.</i>						
Fairmont Coal Co.	Beechwood	3	9,000	14	3	17
West Virginia Coal Co.	Richard	3	7,004	40	6	46
Deckers Creek C. & C. Co.	Deckers Cr	4	100	6	4	10
Totals.....		10	16,104	60	13	73
<i>Marshall County.</i>						
Hitchman C. & C. Co.	Hitchman	4	49,642	89	16	105
Wheeling Steel & Iron Co.	Benwood	2	589	26	4	30
Glendale Coal Co.	Glendale	5	80,357	70	16	86
Mound Coal Co.	Moundsville	7	71,743	65	12	77
Totals.....		18	202,331	250	48	298
<i>Kanawha County.</i>						
Elk Coal Co.	Turner	4	16,676	20	8	28
Black Hawk Coal Co.	Black Hawk	2	3,980	16	4	20
Campbells Creek Coal Co.	Co-operative	7	75,025	62	26	88
Quincy Coal Co.	Quincy	2	2,469	7	4	11
Mile Branch C. Co.	Mile Branch	3	17,815	40	9	49
Kanawha & Hocking C. & C. Co.	K. & H. No. 101	2	6,847	15	2	17
" "	K. & H. No. 103	4	11,948	20	8	28
" "	K. & H. No. 105	4	59,659	60	8	68

* One machine from Anderson mine worked temporarily.

COMPANIES OPERATING MINE MACHINES AND THE QUANTITY OF COAL PRODUCED BY THEM FOR
THE YEAR ENDING JUNE 30th, 1903.

NAME OF COMPANY.	NAME OF MINE.	No. of mine ma- chines.	Tons of coal pro- duced by machines (tons of 2,240 lbs.)	No. of machine runners and helpers.	Total No. men em- ployed by machine miners.
<i>Kanawha County.—Continued.</i>					
Kanawha & Hocking C. & C. Co.	K. & H. No. 106	4	81,841	8	83
"	K. & H. No. 108	3	24,715	6	22
"	K. & H. No. 109	4	56,608	8	38
"	K. & H. No. 110	4	19,365	8	28
"	"	3	33,120	6	31
Cannelton Coal Co.	Cannelton No. 2	4	25,300	8	30
The Marinet Co.	Lens Cr. Nos. 1 & 2	4	16,943	4	15
Winifrede Coal Co.	South	8	74,057	12	56
"	North	1	7	2	7
Coalburg Colliery Co.	Ronda	3	18,898	6	23
Stevens Coal Co.	Aemie	5	18,925	10	55
Dry Branch Coal Co.	Dry Branch Nos. 1, 2 & 3	4	18,141	6	23
Cardiff Coal Co.	Oakley	5	4,557	8	83
Carlson Coal Co.	North & South	2	34,843	8	58
Cabin Creek M. Co.	Kayford Nos. 1, 2 & 3	5	7,616	8	43
Belmont Coal Co.	Coalburg & Lewiston	7	19,776	10	70
Equitable Coal Co.	Crown Hill	4	24,978	6	31
The Pawnee Coal Co.	Black Cat	7	8,839	10	76
Seranton Splint Coal Co.	Seranton	3	56,113	6	56
Paint Creek Coal Co.	Paint Creek	7	42,268	4	21
Chesapeake Mining Co.	Chesapeake	3	16,991	6	21
Montgomery Coal Co.	Kanawha	7	5,400	14	59
Kanawha & Coal River C. Co.	Blk. Band No. 1	2	57,817	4	14
Imperial Colliery Co.	Imperial No. 1	2	5,822	10	14
Totals.....		127	849,372	237	1,252
<i>Putnam County.</i>					
Otto Marinet C. & M. Co.	Pocataliro & Florence	2	7,782	5	25
Totals.....		2	7,782	5	25
<i>Fayette County.</i>					
Kanawha & Hocking C. & C. Co.	K. & H. No. 111	3	73,435	8	78
"	K. & H. No. 112	5	78,348	8	78
"	K. & H. No. 114	3	44,467	8	43
"	K. & H. No. 115	3	62,764	6	96

*COMPANIES OPERATING MINE MACHINES AND THE QUANTITY OF COAL PRODUCED BY THEM
FOR THE ENDING JUNE 30th, 1903.*

NAME OF COMPANY.	NAME OF MINE.	No. of mine ma- chines.	Tons of coal pro- duced by machines (tons of 2,240 lbs.)	No. of machine miners.	No. of machine runners and helpers.	Total No. men em- ployed by machine mining.
<i>Nicholas County.</i>						
Bell Creek Coal Co.	Bell Creek	2	446	20	4	24
The Cambria Mining Co.	Cambria	1			2	2
Totals.....		3	446	20	6	26
<i>McDowell County.</i>						
The Tidewater C. & C. Co.	Tidewater	1	19,101	6	4	10
Peerless C. & C. Co.	Peerless	3	23,310	9	2	11
Pulaski Iron Co.	Pulaski	4	not in use.			
McDowell C. & C. Co.	McDowell	6	24,490	25	6	31
Norfolk C. & C. Co.	Norfolk	4	15,000	20	8	28
" " " "	Angle	3	10,000	15	6	21
" " " "	Lick Branch.	4	16,000	20	8	28
Shamokin C. & C. Co.	Shamokin	3	8,000	15	6	21
Tug River C. & C. Co.	Tug River	2	8,928	6	4	10
Twin Branch M. Co.	Twin Branch	3	15,039	40	6	46
Totals.....		33	139,868	156	50	206
<i>Mercer County.</i>						
Caswell Creek C. & C. Co.	Caswell	4	50,695	40	8	48
Sagamore C. & C. Co.	Sagamore.	1	not yet in use.			
Totals.....		5	50,695	40	8	48
<i>Mingo County.</i>						
Pearl Coal Mining Co.	Camp Branch.	2	3,289	5	2	7
" " " "	Pearl	1				
" " " "	Logan	4	39,710	42	10	52
" " " "	Maritime	2	16,480	20	6	26
" " " "	Red Jacket	4	53,448	50	10	60
" " " "	Thacker Nos. 1 & 2	10	73,361	57	25	82
" " " "	War Eagle		being installed.			
" " " "	Glen Alum Nos. 1 & 2	4	75,416	35	10	45
" " " "	Fappoose Coal Co.	4	2,414	10	8	18
" " " "	Margaret		being installed.			

Hatfield Colliery Co	Hatfield	3	4,000	10	4	14
Totals.....		34	268,118	229	75	304
<i>Barbour County.</i>						
Philippi C. M. Co.....	Philippi Nos. 1, 2 & 3.....	6	68,145	40	10	50
Tygarts River Coal Co	Arden	3	35,940	25	6	31
Southern C. & Trans. Co.....	Berryburg No. 1.....	14	151,199	100	24	124
The Century Coal Co	Century Shaft No. 1.....	13	109,371	60	14	74
Totals.....		36	364,655	225	54	279
<i>Grant County.</i>						
Davis C. & C. Co	No. 22 Shaft.....	3	15,168	12	6	18
" " " "	No. 33 Shaft.....	3	12,121	12	6	18
Totals.....		6	27,289	24	12	36
<i>Mineral County.</i>						
Davis C. & C. Co	No. 19	4	558	.....	.....	.....
Totals.....		4	558	.....	.....	.....
<i>Preston County.</i>						
Hamilton C. & C. Co.....	Newburg Shaft.....	8	15,787	25	16	41
Gorman C. & C. Co.....	Gorman Nos. 1 & 2.....	5	17,000	20	6	26
Irona Coal Co.....	Irona Nos. 1 & 2.....	8	65,937	34	10	44
Merchants Coal Co.	South Side.....	8	114,019	125	16	141
Oakland C. & C. Co.....	Corinth	1	2,500	.....	2	2
Kingwood Coal Co	Howesville	5	29,576	40	10	50
Orr C. & C. Co.....	Vulcan	7	25,085	20	7	27
Atlantic C. & C. Co.....	Atlantic Nos. 1 & 2.....	13	26,823	33	6	39
Totals.....		55	296,747	297	73	370
<i>Randolph County.</i>						
Maryland Smokeless C. Co.....	Weaver No. 1.....	5	57,196	40	8	48
Totals.....		5	57,196	40	8	48
<i>Taylor County.</i>						
Flemington C. & C. Co.....	Flemington	2	24,271	25	5	30
Totals.....		2	24,271	25	5	30
<i>Tucker County.</i>						
Davis C. & C. Co	No. 25	7	15,628	53	12	65
Totals.....		7	15,628	53	12	65

*NUMBER AND KINDS OF MINING MACHINES IN THE
STATE, FOR YEAR ENDING JUNE 30, 1903.*

DISTRICT.	COUNTY.	Electrical Mine Machines.				Compressed Air Mine Machines.				Total No. of Machines.	Tons of Coal Pro- duced by Ma- chines. (Tons of 2240 lbs.
		Jeffrey.	Morgan- Gardner.	Goodman's Link Belt.	Sullivan.	Harrison.	Ingersoll- Sergeant.	Sullivan.	Whitcomb.	Jeffrey.	
First	Hancock.....	4								4	46,812
First	Harrison.....	46	20	1		42	24	6		139	1,501,384
First	Marion.....	33	17			12	13	6	9	90	1,314,208
First	Monongalia.....	3								10	16,104
First	Marshall.....	6	5							18	202,331
Second.....	Kanawha.....	52	68							120	849,372
Second.....	Putnam.....		2							2	7,782
Third.....	Fayette.....	50	48	12	3	87		15		215	1,129,430
Third.....	Nicholas.....	2	1							3	446
Fourth.....	McDowell.....					18	5	2	1	33	139,868
Fourth.....	Mercer.....			1				4		5	50,695
Fourth.....	Mingo.....	13	4			3	14			34	268,118
Fifth.....	Barbour.....	19	8			5	12	12		36	364,655
Fifth.....	Grant.....						6			6	27,289
Fifth.....	Mineral.....						12	12		4	558
Fifth.....	Preston.....		6			38	3	8		55	296,747
Fifth.....	Randolph.....						1	4		5	57,196
Fifth.....	Taylor.....		2							2	24,271
Fifth.....	Tucker.....					2	3	12		17	15,628
Totals,		235	179	21	3	221	73	51	1	795	6,312,894

NUMBER AND KINDS OF MINING MACHINES IN THE STATE, FOR YEAR ENDING JUNE 30, 1903.

NAME OF COMPANY.		NAME OF MINE.		Electrical Mine Machines.				Compressed Air Mine Machines.				Total No. of Machines.	Tons of coal produced by machines (tons of 2,240 lbs.).	
				Jeffrey.	Morgan-Gardner.	Goodman's Link-Belt.	Sullivan.	Harrison.	Ingersoll-Sergeant.	Sullivan.	Whitcomb.	Jeffrey.		
<i>Harrison County—Continued.</i>														
Lukens Coal Co.	Lukens			4									3	515
Chieftain Coal Co.	Chieftain No. 1.												4	
Totals.		46	20	1				42	24	6			130	1,501,384
<i>Marion County.</i>														
Fairmont Coal Co.	Murray	6											6	110,869
	Montana	4											4	56,014
	W. Fair Shaft	4											4	58,362
	New England.	8											8	150,591
	Gaston	2											2	56,676
	Monongah No. 2 & 5.	1	6										7	188,684
	Monongah No. 3.		6										6	155,701
	Monongah No. 6.		5										5	188,511
	Anderson	*							7	2			9	65,023
	Highland													3,918
	Middleton	4											4	66,274
	Chiefton	4						6	3	4		6	19	68,568
George's Creek C. & Iron Co.	Chatham No. 1 & 2.							5					2	95,536
Federal C. & C. Co.	Federal No. 1.							1	3			1	7	25,000
New Central C. Co.	Stafford												5	16,071
Totals.		33	17					12	13	6		9	90	1,314,208
<i>Monongalia County.</i>														
Fairmont Coal Co.	Beechwood.	3											3	9,000
West Virginia Coal Co.	Richard.							3					3	7,004
Deckers Creek C. & C. Co.	Deckers Cr.							4					4	100
Totals.		3						7					10	16,104
<i>Marshall County.</i>														
Hitchman C. & C. Co.	Hitchman.	4											4	49,642
Wheeling Steel & Iron Co.	Benwood.	2											2	589

*One machine from Anderson Mine worked temporarily.

NUMBER AND KINDS OF MINING MACHINES IN THE STATE, FOR YEAR ENDING JUNE 30, 1903.

NAME OF COMPANY.	NAME OF MINE.	Electrical Mine Machines.				Compressed Air Mine Machines.					Total No. of Machines.	Tons of coal produced by machines (tons of 2,240 lbs.).	
		Jeffrey.	Morgan-Gardner.	Goodman's Link-Belt.	Sullivan.	Harrison.	Ingersoll-Sergeant.	Sullivan.	Whitcomb.	Jeffrey.			
<i>Mingo County—Continued.</i>													
War Eagle Coal Co.	War Eagle.					3	*				3	4,000	
Hatfield Colliery Co.	Hatfield.										4	2,414	
Papoose Coal Co.	Papoose.						4						
Margaret M. Co.	Margaret.												
Totals.		13	4			3	14				34	268,118	
<i>Barbour County.</i>													
Philippi C. M. Co.	Philippi No. 1, 2 & 3.	5	1			3					6	68,145	
Tygarts River C. Co.	Arden.	8				2	2	2			14	151,199	
Southern C. & Trans. Co.	Berryburg No. 1.	6	7								13	109,371	
Century Coal Co.	Century No. 1.												
Totals.		19	8			5	2	2			36	364,655	
<i>Grant County.</i>													
Davis C. & C. Co.	No. 22 Shaft.						3				3	15,168	
	No. 33 Shaft.						3				3	12,121	
Totals.							6				6	27,289	
<i>Mineral County.</i>													
Davis C. & C. Co.	No. 19.						2	2			4	558	
Totals.							2	2			4	558	
<i>Preston County.</i>													
Hamilton C. & C. Co.	Newburg Shaft.					8	2	3			8	15,787	
Gorman C. & C. Co.	Gorman No. 1 & 2.							3			5	17,000	
Irona Coal Co.	Irona No. 1 & 2.						5				8	65,357	
Merchants C. Co.	South Side.		6					2			8	114,019	
Oakland C. & C. Co.	Corinth.						1				1	2,500	
Kingwood C. Co.	Howesville.					5		5			5	29,576	
Orr C. & C. Co.	Vulcan.					4					4	25,085	

* Being installed.

TABLE SHOWING THE COMPARATIVE STATEMENTS OF
THE COKE PRODUCTIONS FOR 1903 AND 1902.

COUNTY.	1903	1902	Increase of 1903 Over 1902.	Decrease of 1903 Under 1902.
Harrison.....	62,382	16,572	45,810	.....
Marion.....	282,924	210,451	72,473	.....
Monongalia.....	30,509	19,948	10,561	.....
Kanawha.....	25,789	29,722	.....	3,933
Fayette.....	437,090	515,398	.....	78,308
McDowell.....	1,016,988	929,433	87,555	.....
Mercer.....	167,567	175,083	.....	7,516
Barbour.....	20,991	15,682	5,309	.....
Preston.....	34,627	18,930	15,697	.....
Randolph.....	120,387	38,845	81,542	.....
Tucker.....	284,122	279,680	4,442	.....
Totals.....	2,483,376	2,249,744	323,389	89,757

TABLE SHOWING NUMBER OF COKE OVENS NOT IN USE, BY
COUNTIES.—1902--1903.

DISTRICT.	COUNTY.	No. Ovens not in use.	Fields in which located.
First.....	Harrison.....	14	Upper Monongahela.
First.....	Marion.....	208	.....
First.....	Monongalia.....	57	.....
Second.....	Kanawha.....	18	Kanawha.
Third.....	Fayette.....	497	New River.
Third.....	Raleigh.....	78	.....
Fourth.....	McDowell.....	1,898	Pocahontas.
Fourth.....	Mercer.....	642	.....
Fifth.....	Preston.....	90	Upper Monongahela.
Fifth.....	Tucker.....	101	Upper Potomac.
	Totals.....	3,603	

TABLE SHOWING NUMBER OF COKE OVENS NOT IN USE.
1902-1903.

NAME OF COMPANY.	NAME OF MINE.	No. Coke Ovens not in use.	Fields in which coke plants are located.
<i>Harrison County.</i>			
Fairmont Coal Co.....	Meadow Brook.....	1	Upper Monongahela.
	Farnum.....	12	" "
Fairmont & Baltimore C. & C. Co.	Fairmore.....	1	" "
Total.....		14	Upper Monongahela.
<i>Marion County.</i>			
Fairmont Coal Co.....	Murray.....	59	Upper Monongahela.
" " "	Montana.....	21	" "
" " "	W. Fair Shaft.....	36	" "
" " "	New England.....	8	" "
" " "	Gaston.....	3	" "
" " "	Monongah No. 2.....	62	" "
" " "	Monongah No. 3.....	9	" "
" " "	Hutchinson.....	10	" "
Total.....		208	" "
<i>Monongalia County.</i>			
Fairmont Coal Co.....	Beechwood.....	6	Upper Monongahela.
West Virginia Coal Co.....	Richard.....	50	" "
Deckers Creek C. & C. Co.....	Deckers Cr.....	1	" "
Total.....		57	" "
<i>Kanawha County.</i>			
Cannelton C. & C. Co.....	Cannelton, No. 2.....	14	Kanawha.
East Bank C. & C. Co.....	Chestnut Point.....	4	" "
Total.....		18	" "
<i>Fayette County.</i>			
W. R. Johnson.....	Eagle or Cres'nt No. 1	80	New River.
The Carver Bros. Co.....	Eagle & California. }	16	" "
	Eagle No. 3..... }		
The Mt. Carbon Co., Ltd.....	Vulcan No. 1..... }	62	" "
	South..... }		
The Isabel C. & C. Co.....	Sunnyside..... }	6	" "
Elmo C. & C. Co.....	Elmo..... }		
Nuttallburg C. & C. Co.....	Nutl'g & Ke nys Cr.	37	" "
Victoria C. & C. Co.....	North Side.....	25	" "
Chapman C. & C. Co.....	New Caperton.....	42	" "
Fire Creek C. & C. Co.....	Fire Creek.....	15	" "
Echo C. & C. Co.....	Echo.....	8	" "
Gordon C. & C. Co.....	Central No. 1.....	25	" "
Brooklyn C. Co.....	Brooklyn.....	1	" "
Red Ash C. Co.....	Red Ash.....	78	" "
Rush Run C. & C. Co.....	Rush Run.....	7	" "
Benry C. & C. Co.....	Stone Cliff.....	28	" "
Greenwood C. Co.....	Greenwood.....	11	" "
W. P. Rend.....	Rend No. 2.....	56	" "
Total.....		497	" "
<i>Raleigh County.</i>			
Royal C. & C. Co.....	Royal.....	78	New River.
Total.....		78	" "
<i>McDowell County.</i>			
The Tidewater C. & C. Co.....	Tidewater.....	100	Pocahontas.
Bottom Creek C. & C. Co.....	Bottom Creek.....	110	" "
Peerless C. & C. Co.....	Peerless.....	110	" "
The Empire C. & C. Co.....	Empire.....	110	" "
Shawnee C. & C. Co.....	Shawnee.....	89	" "
Eureka C. & C. Co.....	Eureka.....	90	" "
Pulaski Iron Co.....	Pulaski.....	2	" "
Keystone C. & C. Co.....	Keystone.....	105	" "
Algoma C. & C. Co.....	Algoma.....	75	" "
Gilliam C. & C. Co.....	Gilliam.....	97	" "
Rolfe C. & C. Co.....	Rolfe.....	35	" "
Roanoke C. & C. Co.....	Roanoke.....	30	" "

TABLE SHOWING NUMBER OF COKE OVENS NOT IN USE.
1902-1903.

NAME OF COMPANY.	NAME OF MINE.	No. Coke Ovens not in use.	Fields in which coke plants are located.
<i>McDowell County—Continued.</i>			
Indian Ridge C. & C. Co.....	Indian Ridge.....	4	Pocahontas.
Arlington C. & C. Co.....	Arlington.....	63	"
Greenbrier C. & C. Co.....	Greenbrier.....	50	"
McDowell C. & C. Co.....	McDowell.....	100	"
Ashland C. & C. Co.....	Ashland No. 1 & 2....	170	"
Elk Ridge C. & C. Co.....	Elk Ridge.....	41	"
Lynchburg C. & C. Co.....	Lynchburg.....	63	"
Powhatan C. & C. Co.....	Powhatan.....	79	"
Upland C. & C. Co.....	Upland No. 1 & 2....	61	"
Houston C. & C. Co.....	Houston No. 1 & 2....	30	"
Crozer C. & Co.....	Crozer No. 1 & 2....	129	"
Norfolk C. & C. Co.....	Norfolk.....	52	"
" " " " " "	Lick Branch.....	23	"
" " " " " "	Delta.....	20	"
Shamokin C. & C. Co.....	Shamokin.....	60	"
Total.....		1,898	"
<i>Mercer County.</i>			
Mill Creek C. & C. Co.....	Sterling.....	30	Pocahontas.
Coaldale C. & C. Co.....	Coaldale.....	52	"
Buckeye C. & C. Co.....	Buckeye.....	35	"
Caswell Creek C. & C. Co.....	Caswell.....	106	"
Booth-Bowen C. & C. Co.....	Booth-Bowen.....	104	"
Louisville C. & C. Co.....	Louisville.....	25	"
The Goodwill C. & C. Co.....	Goodwill.....	35	"
Pinnacle C. & C. Co.....	North & South.....	8	"
Sagamore C. & C. Co.....	Sagamore.....	1	"
Crystal C. & C. Co.....	Crystal.....	100	"
The Thomas C. Co.....	Thomas.....	146	"
Total.....		642	"
<i>Preston County.</i>			
The Austen C. & C. Co.....	Austen No. 1 & 2....	3	Upper Monongahela.
Hamilton C. & C. Co.....	Newburg Shaft.....	72	"
Gorman C. & C. Co.....	Gorman No. 1 & 2....	15	"
Total.....		90	"
<i>Tucker County.</i>			
Davis C. & C. Co.....	No. 23.....	12	Upper Potomac.
" " " " " "	No. 34 (Shaft).	7	"
" " " " " "	No. 35.....	7	"
" " " " " "	No. 36.....	21	"
" " " " " "	No. 37.....	56	"
Cumberland Coal Co.....	No. 1 & 3 Douglas....	5	"
Total.....		101	"

PRODUCTION OF COKE BY COUNTIES FOR THE YEAR ENDING JUNE 30th, 1903.

DISTRICT.	COUNTY.	No of coke plants reported.	Total tons of coal used in ovens (tons of 2,000 lbs.)	Total tons of coke produced (tons of 2,000 lbs.)	Percentage of yield.	Total No. of coke ovens reported.	Total No. of coke ovens not in use.	Average No of coke ovens operated during the year.		Average No. of days ovens were operated.	No. of men employed on ovens.
								In county.	Per plant.		
First.....	Harrison.....	6	115,627	62,382	53.9	262	14	248	41	162	90
First.....	Marion.....	10	521,202	282,924	54.3	898	208	690	82	268	277
First.....	Monongalia.....	4	61,903	30,509	49.3	166	57	109	28	172	47
Second.....	Kanawha.....	2	40,676	25,789	64.3	102	18	84	50	187	25
Third.....	Fayette.....	37	764,423	437,090	57.2	2,869	497	2,372	66	196	844
Third.....	Raleigh.....	1	.....	.....	.....	78	78	.....	.....	.....	.....
Fourth.....	McDowell.....	31	1,694,710	1,016,988	61.9	5,632	1,898	3,734	137	303	1,892
Fourth.....	Mercer.....	11	279,192	167,567	60.0	1,404	642	762	83	214	313
Fifth.....	Barbour.....	1	30,054	20,991	69.8	51	.....	51	51	208	11
Fifth.....	Preston.....	4	61,811	34,627	56.0	243	90	153	57	274	39
Fifth.....	Randolph.....	3	177,938	120,387	67.6	220	.....	220	74	271	60
Fifth.....	Tucker.....	5	510,700	284,122	55.6	709	101	608	120	262	253
Totals.....	Totals.....	115	4,227,634	2,483,376	58.7	12,634	3,603	9,031	75	234	3,851

PRODUCTION OF COKE FOR THE YEAR ENDING JUNE 30th, 1903.

NAME OF COMPANY.	NAME OF MINE.	Tons of coal used in ovens (tons of 2,000 lbs.).	Tons of coke produced, (tons of 2,000 lbs.).	No. coke ovens reported.	Avg. No. ovens used per plant.	Avg. days ovens were operated.
<i>Harrison County.</i>						
Fairmont Coal Co.	Enterprise	39,582	21,789	60	60	248
" "	Gypsy & Harbert	23,975	18,341	80	80	156
" "	Meadow Brook.	5,453	3,261	50	49	42
" "	Farmum.	7,327	4,142	22	10	199
Fairmont & Baltimore C. & C. Co.	Farmore.	16,298	8,652	30	29	240
Hutchinson Fuel Co.	Byron No. 1 & 2.	12,992	6,197	20	20	90
Totals.		115,627	62,382	262	41	162
<i>Marion County.</i>						
Fairmont Coal Co.	Murray	32,903	18,137	96	37	210
" "	Montana.	117,593	63,640	156	129	261
" "	W. Fair Shaft			36		
" "	New England	59,534	32,317	94	86	292
" "	Gaston	56,971	31,717	89	86	292
" "	Monongah No. 2	134,813	72,462	222	160	280
" "	Monongah No. 3	63,988	34,388	99	90	280
" "	Pennols	6,236	3,343	12	12	197
" "	Hutchinson.	20,919	11,306	50	40	140
" "	King	28,295	15,614	50	50	290
Virginia & Pittsburg C. & C. Co.						
Totals.		521,202	282,924	898	82	268
<i>Monongalia County.</i>						
Opokiska C. & C. Co.	Opokiska	18,686	6,772	20	20	200
Fairmont Coal Co.	Beechwood	38,966	20,876	40	40	264
West Virginia Coal Co.	Richard.	4,271	2,861	75	25	150
Deckers Creek Coal & Coke Co.	Deckers Cr.			25	24	20
Totals.		61,903	30,509	166	28	172
<i>Kanawha County.</i>						
Cannelton C. & C. Co.	Cannelton No. 2	37,326	24,489	90	76	194
East Bank C. & C. Co.	Chestnut Point.	2,750	1,300	12	8	120
Totals.		40,076	25,789	102	50	187
<i>Fayette County.</i>						
Kanawha & Hocking C. & C. Co.	K. & H. No. 111	20,894	11,182	50	50	160

Kanawha & Hocking C. & C. Co.	6,274	3,427	50	50	80
W. R. Johnson	16,881	11,220	50	50	153
The Carver Bros. Co.	32,398	19,456	80	80	130
Gordon C. & C. Co.	16,744	9,900	110	30	160
The Mt. Carbon Co. Ltd.	4,910	7,320	76	60	225
The Gt. Kanawha Colliery Co. Ltd.	9,928	11,300	85	85	.....
The Gauley Mountain C. Co.	19,779	5,870	202	140	190
The Isabel C. & C. Co.	11,200	7,439	69	69	121
Elmo C. & C. Co.	14,896	26,447	132	132	270
Fayette C. & C. Co.	43,505	4,152	18	12	.....
The Low Moor Iron Co.	6,803	1,250	12	12	182
Nuttallburg C. & C. Co.	20,390	38,727	111	111	200
Victoria C. & C. Co.	75,233	3,500	72	35	150
Chapman C. & C. Co.	2,800	12,992	150	125	120
Longdale Iron Co.	5,600	2,600	60	18	200
Fire Creek C. & C. Co.	49,146	28,849	193	193	.....
Echo C. & C. Co.	16,832	8,911	96	81	206
Gordon C. & C. Co.	7,941	4,767	48	40	100
Brooklyn Coal Co.	6,457	3,604	50	25	.....
Red Ash Coal Co.	20,951	12,761	65	64	277
Bush Run C. & C. Co.	22,390	14,550	78	.....	.....
Beechwood C. & C. Co.	12,038	5,936	92	85	277
Harvey C. & C. Co.	3,998	2,142	60	32	175
Sun C. & C. Co.	39,200	23,300	30	30	.....
The Turkey Knob C. Co.	38,569	23,279	100	100	150
The Macdonald Colliery Co.	40,216	22,020	100	100	300
Quinnmont Coal Co.	30,225	20,227	120	120	225
Greenwood Coal Co.	47,239	25,445	100	100	.....
W. P. Rend.	22,785	13,071	120	120	208
.....	8,655	5,447	92	92	293
.....	5,370	2,877	50	39	.....
.....	3,982	2,013	14	14	250
.....	1,611	863	96	40	250
.....	1,967	1,054	6	6	250
.....	3,436	1,841	8	8	250
Totals.....	764,423	437,090	2,869	66	196
Raleigh County.					
Royal C. & C. Co.			78	.....	.....
Totals,			78	.....	.....

PRODUCTION OF COKE FOR THE YEAR ENDING JUNE 30th, 1903.

NAME OF COMPANY.	NAME OF MINE.	Tons of coal used in ovens, (tons of 2,000 lbs.).	Tons of coke produced, (tons of 2,000 lbs.).	No. coke ovens reported.	Avg. No. ovens used per plant.	Avg. days ovens operated.
<i>McDowell County.</i>						
The Tidewater C. & C. Co.	Tidewater	11,108	7,472	15	50	219
Bottom Creek C. & C. Co.	Bottom Creek	34,685	21,521	170	60	247
Peerless C. & C. Co.	Peerless	40,517	28,692	204	94	278
The Empire C. & C. Co.	Empire	57,791	37,745	250	140	240
Shawnee C. & C. Co.	Shawnee	33,258	18,559	164	75	275
Eureka C. & C. Co.	Eureka	39,183	25,340	200	110	365
Pulaski Iron Co.	Pulaski	127,804	78,698	200	198	300
Keystone C. & C. Co.	Keystone	31,456	16,653	180	75	220
Algoma C. & C. Co.	Algoma	33,942	21,141	175	100	313
Gilliam C. & C. Co.	Gilliam	49,504	27,625	217	120	300
Rolfe C. & C. Co.	Rolfe	28,464	15,884	100	65	300
Roanoke C. & C. Co.	Roanoke	55,287	35,002	130	100	300
Indian Ridge C. & C. Co.	Indian Ridge	51,355	30,569	100	96	280
Arlington C. & C. Co.	Arlington	46,400	25,925	158	95	300
Greenbrier C. & C. Co.	Greenbrier	49,551	29,558	200	150	265
McDowell C. & C. Co.	McDowell	34,130	24,793	200	100	313
Ashland C. & C. Co.	Ashland No. 1 & 2	59,543	38,299	400	130	266
Elk Ridge C. & C. Co.	Elk Ridge	54,952	30,682	141	100	300
Lynchburg C. & C. Co.	Lynchburg	60,328	33,664	213	150	365
Powhatan C. & C. Co.	Powhatan	77,564	43,283	225	146	280
Upland C. & C. Co.	Upland No. 1 & 2	66,585	44,588	221	160	365
Houston C. & C. Co.	Houston No. 1 & 2	82,345	51,656	230	200	313
Crozer C. & C. Co.	Crozer No. 1 & 2	75,677	63,632	354	225	365
Turkey Gap C. & C. Co.	Turkey Gap	131,159	72,886	240	240	300
Norfolk C. & C. Co.	Norfolk	56,797	31,695	172	120	300
" " " " " "	Angle	35,598	20,943	100	100	300
" " " " " "	Lick Branch	60,236	33,634	158	135	300
" " " " " "	Delta	41,198	22,990	130	100	300
Shamokin C. & C. Co.	Shamokin	51,265	28,908	200	140	390
Elkhorn C. & C. Co.	Elkhorn	76,429	47,771	170	170	200
Tug River C. & C. Co.	Tug River	10,499	7,000	50	50	365
Totals.....		1,664,710	1,016,988	5,682	137	303
<i>Mercer County.</i>						
Mill Creek C. & C. Co.	Sterling	50,986	32,668	155	125	160
Coaldale C. & C. Co.	Coaldale	29,120	18,900	140	88	160
Buckeye C. & C. Co.	Buckeye	27,862	16,077	100	65	300
Caswell Creek C. & C. Co.	Caswell	49,616	29,533	231	125	198

Booth-Bowen C. & C. Co.	Booth-Bowen	38,924	20,434	177	73	300
Louisville C. & C. Co.	Louisville	41,581	24,755	125	100	270
The Goodwill C. & C. Co.	Goodwill	19,202	12,002	80	45	205
Pinnacle C. & C. Co.	North & South	12,990	7,598	100	42	192
Sagamore C. & C. Co.	Sagamore	9,408	5,600	50	49	180
Crystal C. & C. Co.	Crystal	.....	.....	100	.....	.....
The Thomas Coal Co.	Thomas	.....	.....	146	.....	.....
Totals.		279,192	167,567	1,404	83	214
<i>Barbour County.</i>						
Junior Coal Co.	Junior	30,054	20,991	51	51	208
Totals.		30,054	20,991	51	51	208
<i>Preston County.</i>						
The Austen C. & C. Co.	Austen Nos. 1 & 2	34,496	20,523	83	80	300
Hamilton C. & C. Co.	Newburg Shaft	6,142	2,750	95	23	150
Gorman C. & C. Co.	Gorman Nos. 1 & 2	.....	.....	15	.....	.....
Oakland C. & C. Co.	Corinth	21,173	11,344	50	50	290
Totals.		61,811	34,627	243	57	274
<i>Randolph County.</i>						
Junior Coal Co.	Harding	56,836	39,749	85	85	306
Maryland Smokeless C. Co.	Weaver No. 1	70,700	47,194	50	50	250
Totals.	Weaver No. 2	50,400	33,504	85	85	250
<i>Tucker County.</i>						
Davis C. & C. Co.	No. 23	177,936	130,387	220	74	271
" " " "	No. 34 Shaft	82,677	49,211	114	102	310
" " " "	No. 35	8,508	5,064	.....	54	309
" " " "	No. 36	41,984	4,948	61	120	310
" " " "	No. 37	109,715	65,304	147	195	310
" " " "	Nos. 1 & 3 Douglas	181,700	108,335	232	130	130
Cumberland Coal Co.		86,116	51,290	135	130	202
Totals.		510,700	284,122	709	120	202

DETAIL OF THE MEN EMPLOYED AT THE MINES AND OVENS, BY COUNTIES, FOR THE YEAR
ENDING JUNE 30, 1903.

DISTRICT.	COUNTY.	No. mines pro- ducing coal.	Avg. No. days mines were operated.	No. coke plants operated.	No. days operat- ed, No. ovens	Employees.										Sum total.
						Inside.					Outside.					
						Pick miners.	Machine miners.	Machine runners and helpers.	Laborers.	Total.	Laborers.	Coke workers.	Total.			
First	Brooke	4	241			53	45	8	16	69	9			78		
First	Hancock	2	250			29			16	98	24			122		
First	Harrison	40	227	6	162	508	846	197	526	2,077	454	90		2,021		
First	Marion	24	224	9	268	915	500	220	672	2,387	519	277		3,193		
First	Monongalia	5	226	4	172	77	60	13	39	189	73	47		300		
First	Marshall	5	192			44	250	48	74	416	54			470		
First	Ohio	7	217			153			34	187	19			406		
Second	Kanawha	71	167	2	187	1,749	1,015	237	987	3,988	698	25		4,711		
Second	Mason	9	215			221			48	269	37			306		
Second	Putnam	5	226			348	20	5	113	486	102			588		
Second	Lincoln	2	185			80			11	91	6			97		
Third	Fayette	106	173	36	196	4,422	1,230	355	1,853	7,840	1,243	844		9,927		
Third	Raleigh	13	208			382			81	463	43			506		
Third	Nicholas	44	163			20	20	6	77	21	21			98		
Fourth	McDowell	55	215	31	303	3,494	156	50	1,639	5,339	888			8,119		
Fourth	Mercer	15	230	9	214	841	40	8	328	1,217	205			1,735		
Fourth	Mingo	23	210			615	229	75	253	1,172	198			1,370		
Fourth	Barbour	12	218	1	208	161	225	54	182	622	133	11		766		
Fifth	Grant	3	263			12	24	12	20	68	13			81		
Fifth	Mineral	11	236			465			63	528	85			613		
Fifth	Preston	18	217	3	274	407	207	73	158	935	97	39		1,071		
Fifth	Randolph	8	221	3	271	293	40	8	77	418	57	60		535		
Fifth	Taylor	6	198			249	25	5	81	360	84			444		
Fifth	Tucker	8	230	5	202	725	53	12	354	1,144	89	253		1,486		
	Totals	453	201	109	234	16,287	5,165	1,366	7,652	30,450	5,151	3,851	9,002	39,452		

DETAIL OF THE MEN EMPLOYED AT THE MINES AND OVENS FOR THE YEAR ENDING JUNE 30, 1903.

NAME OF MINE.	EMPLOYEES.										No. of mules and horses inside.
	Inside.					Outside.					
	Pick miners.	Machine miners.	Machine runners & helpers.	Laborers.	Total.	Laborers.	Coke workers.	Total.	Avg. No. days mines were op-erated.	Avg. No. ovens in operation per plant.	
Harrison County—Continued.											
Columbia	12	41	12	25	90	17	.....	17	204	.....	12
Fairmont Coal Co.	30	40	10	26	106	22	.....	22	252	.....	.....
Ocean	30	9	4	16	59	15	.....	15	209	.....	.....
Riverdale .....	.....	45	6	10	61	5	.....	5	208	.....	.....
Perry No. 1 .....	.....	20	4	3	27	3	.....	3	208	.....	.....
Perry No. 2 .....	.....	20	2	4	26	4	.....	4	250	.....	.....
Perry No. 3	75	.....	.....	20	95	10	10	20	151	240	29
Fairmont & Baltimore C. & C. Co.	.....	35	4	8	47	9	.....	9	240	.....	15
Cook C. & C. Co.	3	40	4	10	57	6	.....	6	250	.....	16
Pittsburg & Fairmont Fuel Co. ....	.....	5	2	2	9	3	.....	3	100	.....	7
Pooz .....	.....	25	10	8	43	7	.....	7	189	.....	14
Lucas .....	.....	40	8	13	61	16	.....	16	242	.....	8
Erie .....	.....	45	.....	4	49	3	.....	3	120	.....	3
Clark Coal Co. ....	.....	8	.....	4	12	6	.....	6	234	.....	3
Cook & Hart Coal Co. ....	.....	25	6	8	44	9	5	14	200	90	20
Rosebud	5	.....	.....	9	14	3	.....	3	60	.....	5
Byron No. 1 & 2 .....	.....	3	2	9	14	3	.....	3	100	.....	2
Phoenix .....	.....	50	5	10	65	10	.....	10	160	.....	2
Solon-Lowery .....	.....	13	2	5	21	5	.....	5	165	.....	3
Lukens Coal Co. ....	.....	8	.....	2	18	4	.....	4	140	.....	3
Chiefain Coal Co.	just	being	opened	.....	.....	.....	.....	.....	.....	.....	.....
Pitcairn Coal Co. ....	.....	846	197	526	2,077	451	90	544	227	162	41
Totals	508	846	197	526	2,077	451	90	544	227	162	41
Marion County.											
Murray	22	48	10	30	110	25	20	45	209	210	37
Montana	80	18	6	75	179	40	60	100	299	261	129
Anvora	15	.....	.....	10	25	6	.....	6	229	.....	.....
West Fair Shaft	70	20	6	50	146	30	.....	30	365	.....	.....
O'Donnell	22	.....	.....	7	29	7	.....	7	211	.....	.....
New England	115	60	25	70	270	60	35	95	272	262	86
Gaston	89	9	4	42	144	35	32	67	255	292	86
Monongah No. 2 & 5	80	100	12	68	260	75	65	140	237	280	100
Monongah No. 3	75	90	12	60	237	35	30	65	224	280	90
Monongah No. 6	9	8	90	35	142	24	.....	24	229	.....	19
Pennsils	55	.....	.....	24	79	16	3	19	189	197	12

Marion.....	12	.....	.....	.....	3	15	4	.....	4	192	.....	.....	.....	2
Anderson.....	20	35	9	.....	.....	35	19	.....	.....	180	.....	.....	.....	12
Highland.....	50	.....	.....	.....	.....	78	26	.....	.....	183	.....	.....	.....	15
Middleton.....	15	35	6	.....	.....	28	26	.....	.....	202	.....	.....	.....	12
Chiefton.....	18	35	6	.....	.....	28	30	.....	.....	190	.....	.....	.....	15
Hutchinson.....	60	.....	.....	.....	.....	88	26	.....	18	209	140	40	.....	12
King.....	100	.....	.....	.....	.....	115	8	.....	14	230	230	50	.....	13
Virginia & Pittsburgh C. & C. Co.....	.....	100	30	.....	.....	120	.....	.....	.....	.....	.....	.....	.....	6
George's Creek Coal & Iron Co.....	.....	14	8	.....	.....	38	12	.....	.....	.....	.....	.....	.....	3
Federal No. 1.....	.....	18	6	.....	.....	34	12	.....	.....	107	.....	.....	.....	3
New Central C. Co.....	8	.....	.....	.....	.....	18	3	.....	.....	160	.....	.....	.....	1
Kilarn.....	.....	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	915	590	220	.....	672	2,397	519	277	796	224	268	82	.....	271
<i>Monongalia County.</i>														
Opokiska.....	30	.....	.....	.....	.....	30	30	6	.....	210	200	20	.....	10
Beechwood.....	30	14	3	.....	.....	67	10	15	.....	260	264	40	.....	10
Fairmont Coal Co.....	.....	40	6	.....	.....	52	8	.....	.....	150	150	25	.....	5
Richard.....	2	6	4	.....	.....	23	23	22	4	27	120	24	.....	.....
Deckers Creek.....	15	.....	.....	.....	.....	17	2	.....	.....	190	.....	.....	.....	2
Fulmer.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A. C. Fulmer & Co.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	77	60	13	.....	39	189	73	47	120	226	172	28	.....	27
<i>Marshall County.</i>														
Hitchman.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boggs Run.....	34	89	16	.....	30	135	20	.....	.....	128	.....	.....	.....	16
West Virginia Coal Co.....	.....	.....	.....	.....	.....	14	7	.....	.....	213	.....	.....	.....	7
Benwood.....	10	26	4	.....	7	47	8	.....	.....	286	.....	.....	.....	7
Glendale Shaft.....	.....	70	16	.....	12	98	10	.....	.....	.....	.....	.....	.....	8
Glendale Coal Co.....	.....	65	12	.....	11	88	9	.....	.....	229	.....	.....	.....	8
Moundsville.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	44	250	48	.....	74	416	54	.....	54	192	.....	.....	.....	46
<i>Ohio County.</i>														
Jochum & Co.....	3	.....	.....	.....	1	4	.....	.....	.....	300	.....	.....	.....	1
Whitaker.....	15	.....	.....	.....	4	19	4	.....	.....	250	.....	.....	.....	4
Richland.....	28	.....	.....	.....	9	37	4	.....	4	180	.....	.....	.....	4
Elm Grove.....	65	.....	.....	.....	10	75	6	.....	6	180	.....	.....	.....	7
Manchester.....	7	.....	.....	.....	3	10	.....	.....	.....	352	.....	.....	.....	4
McKinley.....	35	.....	.....	.....	5	40	5	.....	5	270	.....	.....	.....	5
Wheeling Steam Coal Co.....	.....	.....	.....	.....	2	2	.....	.....	.....	90	.....	.....	.....	1
La Belle.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	153	.....	.....	.....	34	187	19	.....	19	217	.....	.....	.....	26
<i>Kanawha County.</i>														
Falling Rock Cannel C. Co.....	25	.....	.....	.....	4	29	4	.....	.....	300	.....	.....	.....	4
Keystone Coal Co.....	48	.....	.....	.....	4	52	4	.....	4	155	.....	.....	.....	7
Elk Coal Co.....	60	.....	.....	.....	18	78	5	.....	5	.....	.....	.....	.....	10
Queen Shoals.....	.....	.....	.....	.....	25	53	10	.....	10	162	.....	.....	.....	9
Turner.....	.....	20	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glendenin.....	just	being o	pened	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Peacock.....	18	.....	.....	.....	2	20	1	.....	1	180	.....	.....	.....	.....

North & South.	Carbon Coal Co.	10	75	8	25	118	16	.....	16	110	.....	9
No. 1	West Virginia Colliery Co.	60	.....	.....	20	80	12	.....	12	160	.....	15
Raccoon	Raccoon Fork Coal Co.	80	.....	.....	15	95	10	.....	10	108	.....	10
Gas	United Colliery Co.	15	.....	.....	15	15	3	.....	3	65	.....	6
Kayford Nos. 1, 2 & 3	Cabin Creek Mining Co.	100	50	8	50	208	25	.....	25	65	.....	20
Peerless	Pine Grove Coal Co.	12	.....	.....	2	14	.....	.....	.....	135	.....	2
Robinson Nos. 4 & 5.	Robinson Coal Co.	40	.....	.....	15	55	9	.....	9	228	.....	11
Klondike	East Bank C. & C. Co.	18	.....	.....	3	21	2	.....	2	204	.....	4
Coalburg & Lewiston	Belmont Coal Co.	20	.....	.....	10	30	4	.....	4	120	.....	7
Crown Hill.	Equitable Coal Co.	40	35	8	20	103	20	.....	20	120	8	.....
Black Cat.	The Pawnee Coal Co.	10	60	10	18	88	18	.....	18	115	.....	13
Scranton	Scranton Splint Coal Co.	10	25	6	5	46	8	.....	8	160	.....	10
Paint Creek	Paint Creek Coal Co.	.....	66	10	21	97	16	.....	16	170	.....	12
Standard No. 1.	Standard Splint & Gas C. Co.	55	50	6	15	71	12	.....	12	165	.....	11
Tombsburg	Grose Colliery Co.	just	being opened	.....	8	63	9	.....	9	60	.....	5
Imperial No. 1	Imperial Colliery Co.	25	10	4	6	45	6	.....	6	85	.....	4
Greenbrier Nos. 1 & 2	Greenbrier Coal Co.	25	17	4	25	116	10	.....	10	60	.....	2
Chesapeake.	Chesapeake Mining Co.	70	.....	.....	25	39	38	.....	38	159	.....	28
Kanawha	Montgomery Coal Co.	45	15	6	25	91	24	.....	24	192	.....	10
Blk. Band No. 1	Kanawha & Coal River Coal Co.	50	45	14	30	139	10	.....	10	289	.....	16
Blk. Band No. 3.	"	25	.....	.....	4	29	4	.....	4	145	.....	2
Carlin	"	28	.....	.....	7	35	4	.....	4	.....	.....	2
Kanawha Fork.	"	25	.....	.....	8	33	5	.....	5	.....	.....	2
Peerless.	West Virginia Peerless C. Co.	20	.....	.....	1	21	1	.....	1	100	.....	3
Totals.	1,749	1,015	237	987	3,988	698	25	723	167	187	50	567
Mason County.													
Hope	Hope Salt & Coal Co.	20	.....	.....	4	24	1	.....	1	170	.....	8
McDaniel.	Mason City M. Co.	30	.....	.....	5	35	5	.....	5	200	.....	4
Jackson Furnace.	Liverpool Salt & Coal Co.	25	.....	.....	3	28	2	.....	2	200	.....	3
Hartford	Hartford City Salt Co.	18	.....	.....	8	26	4	.....	4	186	.....	5
New Castle & Camden	Consumers C. & M. Co.	65	.....	.....	20	85	15	.....	15	240	.....	12
Klondike	Klondike Coal Co.	26	.....	.....	3	29	3	.....	3	150	.....	3
Beech Grove	Beech Grove Coal Co.	25	.....	.....	5	30	4	.....	4	300	.....	4
Blk. Diamond.	Thos. D. Harris C. Co.	12	.....	.....	.....	12	3	.....	3	.....	.....	2
Totals.	.....	221	.....	.....	48	209	37	.....	37	215	.....	41
Putnam County.													
Plymouth & Manilla.	Plymouth C. & M. Co.	125	.....	.....	36	161	24	.....	24	198	.....	16
Pocahontico & Florence	Otto Marnet C. & M. Co.	150	20	5	50	225	25	.....	25	243	.....	20
Black Betsey	Black Betsey C. & M. Co.	65	.....	.....	25	90	50	.....	50	.....	.....	10
Oak Forest	Oak Forest C. & M. Co.	8	.....	.....	2	10	3	.....	3	290	.....	.....
Totals.	.....	348	20	5	113	486	102	.....	102	226	.....	46
Lincoln County.													
Rochester	Rochester Coal Co.	20	.....	.....	5	25	2	.....	2	200	.....	1

Wright	The Wright C. & C. Co.	100	.....	20	120	10	.....	10	193	.....	.....	18
Lanark Nos. 1 & 2	Lanark Fuel Co.	20	.....	2	22	3	.....	3	200	.....	.....	8
Piney Nos. 1 & 2	Piney Colliery	25	.....	4	29	3	.....	3	180	.....	.....	7
Stonewall Nos. 1 & 2	Stonewall C. & C. Co.	35	.....	6	41	5	.....	5	175	.....	.....	5
Totals		382	.....	81	463	43	.....	43	208	.....	.....	70
<i>Nicholas County.</i>												
Bell Creek	Bell Creek Coal Co.	40	.....	2	66	7	.....	7	103	.....	.....	4
Cambria	The Cambria M. Co.	.....	.....	5	7	4	.....	4	.....	.....	.....	1
Mt. Carmel	Mt. Carmel C. & C. Co.	just	being opened	.....	.....	.....	.....	.....	.....	.....	.....	.....
National	The National C. & C. Co.	just	being opened	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arminius	The Arminius C. Co.	4	.....	.....	4	10	.....	10	.....	.....	.....	.....
Totals		44	20	7	77	21	.....	21	103	.....	.....	5
<i>McDowell County.</i>												
Tidewater	The Tidewater C. & C. Co.	100	6	25	135	25	15	40	219	219	50	10
Bottom Creek	Bottom Creek C. & C. Co.	65	.....	40	105	25	26	51	247	247	60	10
Peerless	Peerless C. & C. Co.	65	9	45	121	85	45	67	278	278	94	20
Empire	The Empire C. & C. Co.	120	.....	85	205	15	85	100	242	240	140	18
Shawnee	Shawnee C. & C. Co.	65	.....	35	100	20	45	65	220	275	75	14
Eureka	Eureka C. & C. Co.	90	.....	45	135	15	50	65	217	365	110	15
Pulaski	Pulaski Iron Co.	120	.....	70	190	10	73	85	216	300	198	30
Keystone Nos. 1 & 2	Keystone C. & C. Co.	75	.....	75	130	42	43	85	210	220	75	12
Algoma Mines	Algoma C. & C. Co.	100	.....	60	160	16	50	66	260	313	100	24
Gilliam	Gilliam C. & C. Co.	85	.....	50	135	25	50	75	240	300	120	16
Rolfe	Rolfe C. & C. Co.	75	.....	50	125	20	40	60	150	300	65	14
Roanoke	Roanoke C. & C. Co.	75	.....	50	125	12	80	92	270	300	100	14
Indian Ridge	Indian Ridge C. & C. Co.	60	.....	25	85	16	50	66	255	290	96	12
Arlington	Arlington C. & C. Co.	80	.....	20	80	35	35	70	220	340	95	15
Greenbrier	Greenbrier C. & C. Co.	50	25	35	116	25	50	75	220	265	150	20
McDowell	McDowell C. & C. Co.	50	25	35	116	12	35	47	305	313	100	18
Ashland Nos. 1 & 2	Ashland C. & C. Co.	25	.....	40	160	10	60	110	258	266	130	25
Cherokee	Cherokee Colliery Co.	120	.....	10	35	10	60	70	200	300	100	15
Elk Ridge	Elk Ridge C. & C. Co.	90	.....	30	120	10	111	218	365	150	333	33
Lynchburg	Lynchburg C. & C. Co.	100	.....	55	155	27	84	60	228	280	146	24
Powhatan	Powhatan C. & C. Co.	97	.....	33	130	15	45	60	228	280	146	24
Upland Nos. 1 & 2	Upland C. & C. Co.	120	.....	50	170	20	120	140	180	365	160	16
Houston Nos. 1 & 2	Houston C. & C. Co.	131	.....	41	172	20	80	100	252	313	200	22
Grozer Nos. 1 & 2	Grozer C. & C. Co.	140	.....	70	210	25	170	105	363	365	225	30
Turkey Gap	Turkey Gap C. & C. Co.	125	.....	50	175	50	125	175	130	300	240	30
Norfolk	Norfolk C. & C. Co.	100	20	75	203	25	65	90	150	300	120	18
Angie	" " " " " "	75	15	50	146	75	50	75	150	300	100	15
Lick Branch	" " " " " "	100	20	75	203	25	65	90	150	300	135	10
Delta	" " " " " "	75	.....	75	150	20	50	70	150	300	100	9
Shamokin	Shamokin C. & C. Co.	125	15	75	221	30	75	105	150	300	140	20
Elkhorn	Elkhorn C. & C. Co.	100	.....	40	140	30	45	75	215	200	170	14
Big Four	Big Four C. & C. Co.	25	.....	15	40	13	.....	13	.....	.....	.....	3
Big Sandy	Big Sandy C. & C. Co.	50	.....	12	62	7	.....	7	240	.....	.....	7

DETAIL OF THE MEN EMPLOYED AT THE MINES AND OVENS FOR THE YEAR ENDING JUNE 30, 1903.

NAME OF MINE.	NAME OF COMPANY.	Employees.							No. of mules and horses inside.					
		Inside.			Outside.									
		Pick miners.	Machine miners.	Machine runners & helpers.	Laborers.	Total.	Laborers.	Coke workers.		Total.				
McDowell County—Continued.														
Cambridge	Vaughan C. & C. Co.	30			10	40	5		5	288			5	5
Davy-Crockett	Davy-Crockett C. & C. Co.	10			5	15	5		5	225			5	4
Tug River	Tug River C. & C. Co.	25	6	4	10	45	3	15	18	300	365	50	5	4
Twin Branch	Twin Branch M. Co.	30	40	6	11	87	5		5	270			4	3
Short Creek	Short Creek C. & C. Co.	16			3	19	4		4	275				2
West	Pocahontas Collieries Co.	8			2	10				200				2
Antler	Antler C. & C. Co.	25			10	35	5		5	250				3
Cletus	Cletus C. & C. Co.	30			5	25	3		3	170				3
Black Stone	Black Stone M. Co.	300				300	100		100	275				2
No. 1, 2 & 3	United States C. & C. Co.				5	25				190				1
Maher	Maher C. & C. Co.	10			2	12	2		2	85				2
Flournoy No. 1	Flournoy Colliery Co.	12			3	15	2		5	350				2
Flournoy No. 2	Flournoy Coal Co.	25			7	32	10		10	150				2
Hensley	Hensley Coal Co.	60			30	90								
Mohawk	Mohawk C. & C. Co.													
Totals.		3,494	156	50	1,639	5,339	888	1,892	2,780	215	303	137	588	
Mercer County.														
Sterling	Mill Creek C. & C. Co.	65			30	95	15	45	60	165	160	125	12	
Coaldale	Coaldale C. & C. Co.	85			40	125	20	35	55	165	160	88	12	
Buckeye	Buckeye C. & C. Co.	90			25	115	10	20	30	300	300	65	12	
Caswell	Caswell Creek C. & C. Co.	80	40	8	45	173	15	65	80	293	198	125	18	
Booth-Bowen	Booth-Bowen C. & C. Co.	127			29	156	28	40	68	300	300	73	23	
Louisville	Louisville C. & C. Co.	75			35	110	15	35	50	221	270	100	19	
Goodwill	Goodwill C. & C. Co.	44			30	75	15	15	30	210	205	45	20	
North & South	Pinnacle C. & C. Co.	55			15	70	9	25	34	263	192	92		
Crane Creek No. 1 & 2	Crane Creek C. & C. Co.	55			22	77	11		11	195			10	
Sagamore	Sagamore C. & C. Co.	55			15	70	8	25	33	270	180	49	6	
Crystal	Crystal C. & C. Co.	35			12	47	4	8	12	225			10	
Thomas	The Thomas Coal Co.	75			25	100	50		50	200			5	
Yukon	Yukon Coal Co.	10			5	15	5		5					
Totals.		841	40	8	328	1,217	205	313	518	230	214	83	154	

<i>Mingo County.</i>									
Camp Branch	Pearl Coal Mining Co.	20	5	2	7	34	3	290	8
Freeport	"	15	abandoned		8	23	2	100	5
Olympia	"				8	28			10
Pearl	"	20			8	33	4	250	8
Mingo	"	25			20	100	20	280	36
Logan	Red Jacket C. & C. Co.	28	42	10	10	87	10	280	15
Rutherford	"	77			15	81	10	280	12
Maritime	"	40	20	6	15	120	20	280	36
Red Jacket	"	40	50	10	15	105	10	280	13
Lick Fork	"	90			15	90	10	280	21
Grapevine	"	75			68	222	28	222	18
Thacker Nos. 1 & 2	Thacker C. & C. Co.	72	57	25	6	36	10	150	8
Lynn	Lynn C. & C. Co.	30			20	65	23	240	10
Glen Alum Nos. 1 & 2	Glen Alum C. Co.	20	35	10	3	23	3	300	2
Nolan	Nolan Coal Co.	just	being opened		6	20	6		3
War Eagle	War Eagle Coal Co.	15	10	4		15	10		2
Hatfield	Hatfield Colliery Co.	2				15	10		2
Jackson	Jackson Coal Co.	15			2	12	4		1
Mate Creek	Mate Creek Coal Co.	9			3	12	2	11	1
Marvin	Marvin Coal Co.	10			10	38	4	60	4
Pappoose	Pappoose Coal Co.	just	being opened		4	19	4	60	2
Margaret	Margaret M. Co.	just	being opened		5	17	4		2
Star	Star Coal Co.	15							
Cedar	Cedar Coal Co.	12							
Merrimac	Merrimac C. & C. Co.	615	229	75	253	1,172	198	210	217
Totals									
<i>Barbour County.</i>									
Junior	Junior Coal Co.	45			8	53	6	208	8
Philippi Nos. 1, 2 & 3	Philippi C. M. Co.		40	10	20	71	20	200	11
Arden	Tygart's River Coal Co.		25	6	10	40	10		6
Berryburg No. 1	Southern C. & Trans. Co.		100	24	94	218	44	216	17
Laurel Creek	Laurel Creek Coal Co.	20			4	24	4	180	3
Century Shaft No. 1	The Century Coal Co.	25	60	14	30	129	40	250	10
Valley	Valley Coal & Coke Co.	30			6	36	5	287	4
Lillian	Freeport Smokeless Coal & Coking Co.	20			2	22	2	150	3
Pennsylvania	The Pennsylvania C. & M. Co.	6			6	12		124	2
Candace	Candace C. & C. Co.	15			2	17	2	135	2
Totals		161	225	54	182	622	133	218	64
<i>Grant County.</i>									
No. 22 Shaft	Davis C. & C. Co.		12	6	8	26	4	306	3
No. 33 Shaft	"		12	6	10	28	8	306	3
Marion	Marion C. & C. Co.	12			2	14	1	140	2
Totals		12	24	12	20	68	13	263	8

Wearer No. 1.....	Maryland Smokeless C. Co.....	20	40	8	21	89	14	20	34	250	250	50	15
Wearer No. 2.....	.....	45	.....	.....	20	65	8	15	23	250	250	85	7
Wearer No. 3.....	.....	8	.....	.....	1	9	1	.....	1	100	.....	.....	1
Klondyke.....	Ritter Coal Co.....	15	.....	.....	9	24	2	.....	2	144	.....	.....	2
Totals.....	.....	208	40	8	77	418	57	60	117	221	271	74	41
Sandlick.....	<i>Taylor County.</i>												
Flemington.....	Grafton C. & C. Co.....	54	.....	.....	20	74	18	.....	18	226	.....	.....	7
No. 41.....	Flemington C. & C. Co.....	15	25	5	25	70	25	.....	25	186	.....	.....	7
Foster.....	Davis C. & C. Co.....	60	.....	.....	14	74	12	.....	12	150	.....	.....	9
Rosemont.....	L. B. Brydon.....	20	.....	.....	4	24	4	.....	4	100	.....	.....	3
Davis.....	Rosemont C. Co.....	40	.....	.....	8	48	12	.....	12	222	.....	.....	10
	T. B. Davis.....	60	.....	.....	10	70	13	.....	13	225	.....	.....	7
Totals.....	.....	249	25	5	81	360	84	.....	84	198	.....	.....	43
No. 23.....	<i>Tucker County.</i>												
No. 34 Shaft.....	Davis C. & C. Co.....	270	.....	.....	82	352	23	44	67	264	310	102	20
No. 25.....	.....	105	.....	.....	48	132	13	.....	13	257	.....	.....	16
No. 35.....	.....	16	53	12	24	105	4	.....	4	263	.....	.....	8
No. 36.....	.....	27	.....	.....	21	48	3	21	24	303	309	54	7
No. 37.....	.....	77	.....	.....	40	117	9	57	66	285	310	126	17
Nos. 1 & 3 Douglas.....	.....	105	.....	.....	69	174	12	86	98	303	310	196	20
	Cumberland C. Co.....	125	.....	.....	70	195	25	45	70	130	130	130	27
Totals.....	.....	725	53	12	354	1,144	89	253	342	250	202	120	115

TABLE SHOWING THE AVERAGE PRICE PAID PICK MINERS
PER YEAR AND MONTH FROM 1897 TO 1903 INCLUSIVE.

YEARS.	Average Earnings. of each pick miner.		Average price per ton of 2,240 lbs. receiv'd for pick m'ing, run of mine.
	Per Year.	Per Month.	
1897.....	\$ 275.58	\$ 22.96	\$.33 1-5
1898.....	316.39	26.36	.33 9-10
1899.....	367.84	30.65	.36 12
1900.....	451.77	37.65	.41 06
1901.....	459.56	38.29	.44 ½
1902.....	533.56	44.46	.47 ½
1903.....	499.06	41.59	.49 ½

WAGES PAID AND SELLING PRICE OF COAL AND COKE, 1903.

DISTRICT.	COUNTY.	Paid Pick Miners per ton of 2,240 lbs.			Trackmen's daily wages.	Selling price of	
		Run of Mine.		Screen- ed.		Coal (2,240 lbs.)	Coke (2,000 lbs.)
		Room.	Heading.	Room.			
First ..	Brooke.....	\$.61½	\$.....	\$1.01½	\$ 2.25	\$ 1.20	\$.....
First ..	Hancock.....	.56	.....	.....	2.17	1.26	.....
First ..	Harrison.....	.51	.57½	.....	1.95	1.46	2.67
First ..	Marion.....	.52½	.55	.....	1.93	1.35	3.00
First ..	Monongalia.....	.44	.....	.....	1.50	1.20	1.75
First ..	Marshall.....	.65	.....	.99	2.26	1.25	.....
First ..	Ohio.....	.....	.....	.89	2.21	.97	.....
Second	Kanawha.....	.47	.....	.78	2.00	1.45	3.00
Second	Mason.....	.62	.....	.79	1.57	1.28	.....
Second	Putnam.....	.....	.....	.71	1.65	1.25	.....
Second	Lincoln.....	.55½	.....	.....	2.00	1.60	.....
Third.	Fayette. { Kana River Series	.49	.....	.77	2.12	1.13	3.30
		.55	.....	.....		1.75	3.84
		.45	.....	.....		1.41	3.67
Third.	Raleigh.....	.52	.....	.....	2.17	1.61	.....
Third.	Nicholas.....	.....	.....	.84	2.00	1.20	.....
Fourth	McDowell. { Pocah'tas No. 3	.35	.40	.....	1.93	1.24	2.47
		.47	.....	.....		1.59	3.00
Fourth	Mercer.....	.35	.40	.....	1.90	1.33	2.22
Fourth	Mingo.....	.46	.59	.72	1.96	1.27	.....
Fifth...	Barbour.....	.40	.53	.....	1.98	1.48	1.75
Fifth...	Grant.....	.....	.....	.....	2.21	1.00	.....
Fifth...	Mineral.....	.57	.66	.....	2.15	1.08	.....
Fifth...	Preston.....	.52	.62	.....	2.13	1.56	2.92
Fifth...	Randolph.....	.45	.49	.....	2.13	1.50	1.75
Fifth...	Taylor.....	.41	.47	.....	2.02	1.34	.....
Fifth...	Tucker.....	.48	.....	.....	2.16	1.08	1.93
Averages.....		.49½	.52 3-5	.83½	2.02	1.32½	2.66¼

SUMMARY OF THE WAGES PAID MACHINE MINERS, RUNNERS AND HELPERS, 1903.

DISTRICT.	COUNTY.	Machine Miners Paid				Machine Runners.		Machine Helpers.	
		Per Day.	Per ton of 2,240 lbs. Run of Mine.		Per ton of 2,240 lbs. Screened.	Wages.	Paid by	Wages.	Paid by
			Room.	Head-ing.					
First	Hancock.....	\$	\$	\$	\$	\$2.50	Day	\$2.50	Day
First	Harrison.....	2.00	.29	.35		3.00	Day	2.05	Day
First	Marion.....		.28	.35		3.13	Long Ton	1.99	Day
First	Monongalia.....	1.85	.27½	.33		.08¾	Long Ton	2.00	Day
First	Marshall.....		.29½		.86	.275	Long Ton		
Second	Kanawha.....		.30	.35	.52	.08	Long Ton	1.93	Day
Second	Putnam.....		.23			.05½	Long Ton		
Third	Kanawha River Series.....	2.05	.28	.35	.67½	.25	Foot	.05¼	Foot
Third	Fayette { New River Proper.....	1.50	.29	.43		.23	Hour	.20	Hour
Third	Loup Creek.....		.25	.33		.25	Day	1.75	Day
Fourth	Nicholas.....		.31	.43		.23	Day	1.91	Day
Fourth	McDowell { Pocahontas No. 3.....		.29	.43		.27	Foot	.06 1-6	Long Ton
Fourth	Mercer.....		.29½			.21	Foot	2.04	Day
Fourth	Mingo.....		.25	.33		.03½	Foot	.01¼	Foot
Fifth	Barbour.....		.24	.33		.23	Day	2.06	Day
Fifth	Grant.....		.22	.29½		.04	Foot	1.85	Foot
Fifth	Mineral.....		.30½			.235	Day	1.85	Day
Fifth	Preston.....		.35			.235	Day	1.92	Day
Fifth	Randolph.....		.31	.37		.247½	Day	1.75	Day
Fifth	Taylor.....		.30	.31½		.250	Long Ton		
Fifth	Tucker.....		.39			.17	Long Ton		
Averages		1.85	.29	.35	.68½	.235	Day	1.95	Day
						.09	Long Ton	.05¼	Long Ton
						.25	Foot	.20	Foot
							Hour		Hour

STATEMENT OF THE TONNAGE OF COAL AND COKE FROM THE COLLIERIES IN WEST VIRGINIA,
HANDLED AND TRANSPORTED BY THE RAILROADS IN THE STATE DURING THE TWELVE
MONTHS ENDING JUNE 30th, 1903.

(Quantities are expressed in tons of 2,000 lbs.)

Name of Railroad Company.	Total tons handled.		Tons originating on the line.		Tons delivered to the line by other railroads in West Virginia.		Tons delivered to other lines in West Virginia.		West Virginia fuel used by the line in the State.		Railroads and docks to which product is delivered for distribution.	Points of destination of the product.	
	Coal.	Coke.	Coal.	Coke.	Coal.	Coke.	Coal.	Coke.	Coal.	Coke.		East.	West.
Baltimore & Ohio.....	5,749,829	516,739	5,258,633	409,668	491,196	107,071	3,365	2,899	750,000	.....	Locust Point, Cleveland & Sandusky.	Philadelphia, Baltimore & Atlantic Coast.	Chicago, Lake P'ts and Northwest.
West Virginia Central & Pittsburg ..	1,586,158	383,694	1,565,432	383,694	20,726	none.	30,509	45,841	76,555	58	Baltimore & Ohio R. R., and Penn. R. R.	Washington, Baltimore, Phil., S. Amboy, N. J., &c.	Chicago, St. Louis, Cleveland, Sandusky, &c.
Kanawha & Michigan...	*1,161,457	69,774	1,068,577	69,774	92,880	.....	.....	.....	45,000	.....	T. & O. C. and H. V. Rys. Docks, Toledo, O	Ohio cities, Chi., Milwaukee and Lake points.	
Norfolk & Western ...	6,075,994	1,179,262	6,075,306	1,176,151	628	3,111	1,083	52	250,000	.....	Lambert Point Piers, Norfolk, Va., Toledo & Sandusky Docks S. A. L., A. C. L., So. Ry., C. & N., & O. C. L.,	Foreign Ports & Atlantic Coast, Tidewater-Va., N. & S. Carolina.	Cincinnati, Lake Points, Chicago & Western cities.
Chesapeake & Ohio.	3,609,467	421,159	3,609,127	421,140	340	19	9,220	259	323,888	200	C. & O. Docks at Newport News, various railroads.	Coastwise, export, New York and New England.	Cincinnati, Chicago, Toledo, East St. Louis & numerous other points.
Totals	18,182,845	2,570,628	17,577,075	2,460,427	605,770	110,201	44,207	49,051	1,445,443	258			

*The tonnages handled by the Kanawha & Michigan R. R. are estimated as are also the figures giving the amount of West Virginia fuel used by the B. & O. & N. & W.

*NUMBER OF KEGS OF POWDER USED AT THE MINES, BY
COUNTIES, DURING 1903.*

DISTRICT.	COUNTY.	No. of opera- tions re- porting.	Tons of coal (tons of 2,240 lbs).	Kegs of powder used.	Tons per keg used.	Cost per keg to miner.
First	Brooke	2	22,400	284	78	\$ 1.65
First	Hancock	2	70,495	765	92	1.55
First	Harrison	34	2,059,622	28,831	72	1.66
First	Marion	19	2,532,307	33,575	76	1.70
First	Monongalia	4	147,954	2,433	61	1.67
First	Marshall	4	240,945	1,934	124	1.65
First	Ohio	4	90,763	909	99	1.66
Second	Kanawha	43	1,329,353	19,350	69	1.75
Second	Mason	5	86,071	1,551	55	1.75
Second	Putnam	2	147,813	3,343	44	1.75
Second	Lincoln	2	53,350	2,185	24	1.80
Third	Fayette	49	2,223,231	26,012	86	1.95
Third	Raleigh	5	201,433	2,205	91	2.15
Third	Nicholas	2	7,645	370	21	1.67
Fourth	McDowell	39	4,327,445	57,695	75	1.98
Fourth	Mercer	12	1,230,125	24,014	51	2.00
Fourth	Mingo	14	782,490	14,177	55	1.77
Fifth	Barbour	8	491,434	7,723	64	1.54
Fifth	Grant	3	28,489	575	49	1.60
Fifth	Mineral	3	41,355	558	74	1.33
Fifth	Preston	8	323,547	4,100	79	1.50
Fifth	Randolph	4	177,513	2,748	65	1.64
Fifth	Taylor	4	169,047	2,186	77	1.52
Fifth	Tucker	7	1,078,997	11,800	91	1.97
Totals		279	17,863,804	249,323	72	1.71

STEAM BOILERS AT MINES, 1903.

DISTRICT.	COUNTY.	No. mines having boilers.	No. boilers insured.	No. boilers not insured.	Total No. of boilers.
First	Hancock	2	2	2	2
First	Harrison	30	16	36	52
First	Marion	19	15	57	72
First	Monongalia	4	4	1	5
First	Marshall	4	11	1	12
First	Ohio	3	2	2	4
Second	Kanawha	35	39	16	55
Second	Mason	2	4	5	5
Second	Putnam	3	4	2	6
Third	Fayette	64	130	19	149
Third	Raleigh	5	1	11	12
Third	Nicholas	2	1	2	3
Fourth	McDowell	35	84	26	110
Fourth	Mercer	10	20	8	28
Fourth	Mingo	8	13	3	16
Fifth	Barbour	6	14	1	15
Fifth	Grant	2	12	.....	12
Fifth	Mineral	4	2	3	5
Fifth	Preston	11	18	5	23
Fifth	Randolph	2	2	1	3
Fifth	Taylor	2	3	1	4
Fifth	Tucker	4	19	.....	19
Totals		257	410	202	612

*SUMMARY OF THE NUMBER OF MINE LOCOMOTIVES IN THE
STATE—1903.*

DISTRICT.	COUNTY.	No. of min- es using lo- comotives.	Locomotives.			
			Steam.	Elec.	Comp. Air.	Sum Total.
First	Hancock	1	.....	1	.....	1
First	Harrison	5	.....	5	.....	5
First	Marion	3	.....	3	.....	3
First	Monongalia	1	.....	1	.....	1
First	Marshall	1	.....	2	.....	3
Second	Kanawha	2	3	32	.....	35
Second	Putnam	2	.....	2	.....	4
Third	Fayette	38	17	36	1	54
Third	Raleigh	5	2	4	.....	6
Third	Nicholas	1	1	.....	.....	1
Fourth	McDowell	33	31	27	2	60
Fourth	Mercer	8	16	5	.....	21
Fourth	Mingo	5	.....	7	.....	7
Fifth	Barbour	3	.....	6	.....	6
Fifth	Mineral	2	2	.....	.....	2
Fifth	Preston	3	2	3	.....	5
Fifth	Taylor	1	.....	3	.....	3
Fifth	Tucker	6	.....	12	.....	12
Totals		145	74	154	3	231

NUMBER AND KINDS OF LOCOMOTIVES IN USE AT THE MINES—1903.

COUNTY.	NAME OF COMPANY.	NAME OF MINE.	Locomotives.		
			Steam.	Electric.	Comp. Air.
Hancock	The Marquet Coal Co.	Marquet .....	.....	1	.....
	Totals. ....	.....	.....	1	.....
Harrison	Clarksburg Fuel Co.	Two Lick .....	.....	1	.....
“	Fairmont Coal Co.	Viropa .....	.....	1	.....
“	“	Gypsy .....	.....	1	.....
“	Pittsburg & Fairmont C. Co.	Perry No. 1 .....	.....	1	.....
“	Chieftain Coal Co.	Chieftain No. 1 .....	.....	1	.....
	Totals. ....	.....	.....	5	.....
Marion	Fairmont Coal Co.	New England .....	.....	4	.....
“	“	Mononah No. 2 .....	.....	2	.....
“	“	Monongah No. 3 .....	.....	2	.....
	Totals. ....	.....	.....	8	.....
Monongalia	Fairmont Coal Co.	Beechwood .....	.....	1	.....
	Totals. ....	.....	.....	1	.....
Marshall.	Wheeling Steel & Iron Co.	Benwood .....	.....	2	.....
	Totals. ....	.....	.....	2	.....
Kanawha	Elk Coal Co.	Turner .....	.....	1	.....
“	Black Hawk C. Co.	Black Hawk .....	.....	1	.....
“	Campbell's Creek C. Co.	Co-operative .....	.....	2	.....
“	Mile Branch C. Co.	Mile Branch .....	.....	1	.....
“	Kanawha & Hocking C. & C. Co.	K. & H. No. 101 .....	.....	1	.....
“	“	K. & H. No. 103 .....	.....	1	.....
“	“	K. & H. No. 105 .....	.....	1	.....
“	“	K. & H. No. 106 .....	.....	1	.....
“	“	K. & H. No. 110 .....	.....	1	.....
“	Cannelton C. Co.	Cannelton No. 2	2	.....	.....
“	The Marmet Co.	Lens Cr. Nos. 1 & 2 .....	.....	1	.....
“	“	Butler .....	.....	1	.....
“	Winifrede C. Co.	North .....	.....	1	.....
“	“	West .....	.....	1	.....
“	Coalburg Colliery Co.	Ronda .....	.....	1	.....
“	Stevens Coal Co.	Acme .....	.....	1	.....
“	“	Keystone .....	.....	2	.....
“	“	Empire .....	.....	1	.....
“	Cardiff Coal Co.	Oakley .....	.....	1	.....
“	Carbon C. Co.	North & South .....	.....	2	.....
“	Raccoon Fork C. Co.	Raccoon .....	.....	1	.....
“	Belmont C. Co.	Coalburg & Lewiston .....	.....	2	.....
“	Equitable C. Co.	Crown Hill .....	.....	2	.....
“	Scranton Splint C. Co.	Scranton .....	.....	1	.....
“	Chesapeake M. Co.	Chesapeake	1	.....	.....
“	Montgomery C. Co.	Kanawha .....	.....	1	.....
“	Kanawha & Coal River C. Co.	Blk. Band No. 1 .....	.....	2	.....
	Totals. ....	.....	3	32	.....
Putnam	Plymouth C. & M. Co.	Plymouth .....	.....	1	.....
“	Otto-Marmet C. & M. Co.	Pocatalico .....	.....	1	.....
	Totals. ....	.....	.....	2	.....
Fayette	Kanawha & Hocking C. & C. Co.	K. & H. No. 111 .....	.....	2	.....
“	“	K. & H. No. 112 .....	.....	1	.....
“	“	K. & H. No. 114 .....	.....	1	.....
“	“	K. & H. No. 115 .....	.....	1	.....
“	Columbus Iron & Steel Co.	No. 1 .....	.....	1	.....
“	Kanawha Gas C. Co.	Kanawha Gas .....	.....	1	.....
“	Boomer C. & C. Co.	Boomer No. 1	1

**NUMBER AND KINDS OF LOCOMOTIVES IN USE AT THE
MINES—1903.—Continued.**

COUNTY.	NAME OF COMPANY.	NAME OF MINE.	Locomotives.		
			Steam.	Electric.	Comp. Air.
Fayette—C't'd	Boomer C. & C. Co.	Boomer No. 2		1	
"	"	Boomer No. 3		1	
"	Gordon C. & C. Co.	Eureka No. 1 & 2		2	
"	Mecca C. & C. Co.	Mecca No. 2		1	
"	W. R. Johnson	Crescent No. 5	1		
"	The Carver Bros. Co.	Eagle & California		1	
"	"	Edgewater No. 1		1	
"	"	Edgewater No. 2		1	
"	Gordon C. & C. Co.	St. Clair No. 2		1	
"	The Mt. Carbon Co. Ltd.	Vulcan No. 1			1
"	"	Excelsior		1	
"	The Gt. Kanawha Coll. Co. Ltd.	No. 1		2	
"	Gauley Mountain C. Co.	Gauley Mt. No. 1 & 2	4		
"	Nuttallburg C. & C. Co.	Nuttallburg		1	
"	Fire Creek C. & C. Co.	Fire Creek	1		
"	Red Ash C. Co.	Red Ash		2	
"	Rush Run C. & C. Co.	Rush Run		2	
"	The Thurmond C. Co.	Thurmond		2	
"	Alaska C. & C. Co.	Alaska	1		
"	New River Colliery Co.	Slater	1		
"	Ephraims Cr. C. & C. Co.	Buffalo & Slater		4	
"	Harvey C. & C. Co.	Harvey No. 1 & 2	1		
"	Prudence C. Co.	Prudence		2	
"	Sun C. & C. Co.	Sun No. 1 & 2		3	
"	Quinnimont C. Co.	Big Q	1		
"	Greenwood C. Co.	Greenwood	2		
"	W. P. Rend	Rend No. 1	1		
"	"	Rend No. 2	1		
"	"	Rend No. 3	1		
"	"	Rend No. 4	1		
"	"	Rend No. 5	1		
	Totals.....		17	36	1
Raleigh	Raleigh C. & C. Co.	Raleigh No. 1, 2 & 4		2	
"	"	Raleigh No. 3		1	
"	Lanark Fuel Co.	Lanark No. 1 & 2	1		
"	Piney Colliery	Piney No. 1 & 2		1	
"	Stonewall C. & C. Co.	Stonewall No. 1 & 2	1		
	Totals.....		2	4	
Nicholas	Bell Creek C. Co.	Bell Creek	1		
	Totals.....		1		
McDowell	The Tidewater C. & C. Co.	Tidewater		1	
"	Bottom Creek C. & C. Co.	Bottom Creek	1		
"	Peerless C. & C. Co.	Peerless	2		2
"	The Empire C. & C. Co.	Empire		1	
"	Shawnee C. & C. Co.	Shawnee		1	
"	Eureka C. & C. Co.	Eureka	2		
"	Pulaski Iron Co.	Pulaski		2	
"	Keystone C. & C. Co.	Keystone	2		
"	Algoma C. & C. Co.	Algoma		2	
"	Gilliam C. & C. Co.	Gilliam	1	2	
"	Rolfe C. & C. Co.	Rolfe		2	
"	Roanoke C. & C. Co.	Roanoke	1		
"	Indian Ridge C. & C. Co.	Indian Ridge		1	
"	Arlington C. & C. Co.	Arlington		1	
"	Greenbrier C. & C. Co.	Greenbrier		1	
"	McDowell C. & C. Co.	McDowell	2		
"	Ashland C. & C. Co.	Ashland		1	
"	Cherokee Colliery Co.	Cherokee	1		
"	Elk Ridge C. & C. Co.	Elk Ridge	2		
"	Lynchburg C. & C. Co.	Lynchburg	2		
"	Powhatan C. & C. Co.	Powhatan	2		
"	Upland C. & C. Co.	Upland No. 1 & 2	1	1	

NUMBER AND KINDS OF LOCOMOTIVES IN USE AT THE
MINES—1903—Continued.

COUNTY.	NAME OF COMPANY.	NAME OF MINE.	Locomotives.		
			Steam.	Electric.	Comp. Air.
McDowell-Ctd	Houston C. & C. Co	Houston No. 1 & 2	3		
"	Crozer C. & C. Co	Crozer No. 1 & 2		4	
"	Turkey Gap C. & C. Co	Turkey Gap	2		
"	Norfolk C. & C. Co	Norfolk		2	
"	" " " " " "	Angle		2	
"	" " " " " "	Lick Branch		2	
"	" " " " " "	Delta		1	
"	Shamokin C. & C. Co	Shamokin	2		
"	Elkhorn C. & C. Co	Elkhorn	2		
"	Tug River C. & C. Co	Tug River		1	
"	Pocahontas Collieries Co	West	1		
	Totals		31	27	2
Mercer	Mill Creek C. & C. Co	Sterling	4		
"	Coaldale C. & C. Co	Coaldale		2	
"	Buckeye C. & C. Co	Buckeye	3		
"	Caswell Creek C. & C. Co	Caswell	4		
"	Booth-Bowen C. & C. Co	Booth-Bowen	4		
"	Louisville C. & C. Co	Louisville		1	
"	The Goodwill C. & C. Co	Goodwill	1		
"	Sagamore C. & C. Co	Sagamore		2	
	Totals		16	5	
Mingo	Red Jacket C. & C. Co	Logan		2	
"	" " " " " "	Rutherford		1	
"	" " " " " "	Maritime		1	
"	" " " " " "	Red Jacket		2	
"	Glen Alum C. Co	Glenalum No. 1		1	
	Totals			7	
Barbour	Philippi C. M. Co	Philippi No. 1, 2 & 3		2	
"	Southern C. & Trans. Co	Berryburg No. 1		2	
"	The Century C. Co	Century Shaft No. 1		2	
	Totals			6	
Mineral	Davis C. & C. Co	No. 18	1		
"	Big Vein C. Co	Big Vein	1		
	Totals		2		
Preston	The Austen C. & C. Co	Austen No. 1 & 2	2		
"	Merchants C. Co	South Side		2	
"	Atlantic C. & C. Co	Atlantic No. 1 & 2		1	
	Totals		2	3	
Taylor	Flemington C. & C. Co	Flemington		3	
	Totals			3	
Tucker	Davis C. & C. Co	No. 23		4	
"	" " " " " "	No. 34 (Shaft)		2	
"	" " " " " "	No. 25		1	
"	" " " " " "	No. 35		1	
"	" " " " " "	No. 36		1	
"	" " " " " "	No. 37		3	
	Totals			12	

TABLE GIVING THE NUMBER OF MINE OPENINGS; NUMBER OF COKE OVENS; ACRES OF COAL WORKED OUT; NUMBER OF MULES AND HORSES USED AT MINES; NUMBER OF MEN KILLED AND INJURED AND KINDS OF VENTILATION FOR THE YEAR ENDING JUNE 30, 1903.

DISTRICT.	COUNTY.	No. of Mine Openings.	Total No. of Coke Ovens.	Acres of Coal worked out from Commercial Mines.	No. of Men Killed.	No. of Men Injured Non-fatally.	No. Mules & Horses used at Mines.	No. of Fans.	No. of Furnaces.	Nos. of Natural Ventilation.	Fire Shafts, Pines, &c.
First	Brooke	4		4.35			10	1	1		1
First	Hancock	2		15.81			10	1	1		
First	Harrison	45	262	243.08	15	35	244	36	4		2
First	Marion	24	898	313.65	17	32	271	21	2	1	1
First	Monongalia	5	166	17.80		1	27		3		
First	Marshall	5		40.41			46	5			
First	Ohio	7		22.61	2		26	3	4		
Second	Kanawha	91	102	339.92	6	32	567	38	24	10	2
Second	Mason	9		18.10		1	41	3	3		
Second	Putnam	7		26.72	2		46	2	2		
Second	Lincoln	2		5.95			9		2		
Third	Fayette	120	2,869	705.94	35	33	1,266	63	23	23	
Third	Raleigh	16	78	42.87	4		70	3	3	5	
Third	Nicholas	7		1.37			5		2		
Fourth	McDowell	67	5,692	665.06	48	47	588	45	14	2	
Fourth	Mercer	17	1,404	168.31	7	8	154	13	3	1	
Fourth	Mingo	27		128.55	4	11	217	4	18		2
Fourth	Logan	2									
Fifth	Barbour	13	51	67.94	3		64	6	2	1	2
Fifth	Grant	3		2.71	3	2	8	2	1		
Fifth	Mineral	12		55.16	1	6	83	4	1	5	1
Fifth	Preston	20		106.13	3	6	96	9	5		
Fifth	Randolph	10	243	37.57		5	41	2	4	1	
Fifth	Taylor	1		27.65	1	2	43	1	1	3	1
Fifth	Tucker	9	709	164.63	8	2	115	6		1	
	Totals	530	12,694	3,222.29	159	223	4,047	298	124	59	13

IMPROVEMENTS AT THE MINES.

No previous year has shown a greater number of improvements of all kinds than the past.

There have been sixty-eight new plants developed and thirty-four new openings made at existing mines.

Twenty-five electric power plants have been installed: many fans have been placed and 44 tipples constructed.

The table following gives such improvements as were listed in the operators' annual reports, but in many instances important improvements were not reported, hence the table is not complete.

IMPROVEMENTS REPORTED MADE AT THE MINES DURING THE YEAR ENDING JUNE 30, 1903.

COUNTY.	New plants.	Power Plants.			M'ch'n's	Boilers installed.	Generators.	Fans.	Furnaces.	Electric haulages.	Rope haulages.	Motors, Electric.	Coke ovens.	Locomotives.	Tenement houses.	Tipples.	Stores.	Elevators.	Conveyors.	Coal bins.	Mine cars.	Miscellaneous.	Totals.
		Additional open-ings.	Electric.	Compressed air.																			
Brooke.....															1	2						1	2
Hancock.....															98	7						21	2
Harrison.....	6		4	1	5	7	1	4			1	2	*		38	2					661	2	820
Marion.....	1		2			1									3						200	3	251
Monongalia.....	3		1		2										25						25	2	31
Monongalia.....			1												6							2	6
Marshall.....																							2
Ohio.....																							2
Kanawha.....	18	4	7		8	1	1	5	2	2		4	*	2	319	5	5						392
Putnam.....	1	1	1												45	1							3
Lincoln.....									1		1				69	4	1			3		16	49
Rayette.....	10	6	4	1	15	6	1	5		2	2	1		1	10							2	148
Raleigh.....			1																				13
Nicholas.....	4																						4
McIntosh.....																							
McIntosh.....	7	6	1	2		6	1	3	2	2			338	1	311	6	3			1	90	10	791
McIntosh.....			2	*	1			1				2	*	1	95	5				1	50	1	161
Mingo.....			1	1			1						375		120	3	1			1	40	3	186
Barbour.....	9	6	1	1		1							*		73	2					1	2	84
Grant.....	2															1							5
Mineral.....	3							1	1						6								13
Preston.....	2			2		13	2				1		15			3		1	1	3			48
Preston.....													*										
Randolph.....	1	2	*					1			1		*		21	1							6
Randolph.....																2					10		39
Taylor.....											1												11
Tucker.....													10										
Tucker.....																							
Totals.....	68	34	25	7	30	13	25	5	23	6	11	9	* 1,646	5	1,206	44	10	1	4	8	1,077	86	3,445

* In process of construction.

STRIKES AT THE MINES.



SUMMARY OF THE STRIKES AT COAL MINES IN WEST VIRGINIA FOR THE YEAR ENDING JUNE 30, 1903.

DISTRICT.	COUNTY.	Total No. of mines re- porting strikes or lockouts.	Total No. employes thrown out of employ- ment by strikes or lockout.	No. of companies re- porting in full.	No. of companies re- porting loss to em- ployes.	Total loss to employes reported.	No. of companies re- porting loss to ope- rators.	Total loss to operators ^g reported.
First	Hancock	1	25	1	1	\$ 100.00	1	\$ 100.00
First	Harrison	2	98	1	1	8,000.00	1	8,000.00
First	Marshall	4	398	3	3	35,000.00	1	450.00
First	Ohio	4	352	3	4	17,500.00	2	5,100.00
Second	Kanawha	33	2,726	10	20	254,669.00	12	128,600.00
Second	Putnam	2	435	1	1	28,000.00	1	15,000.00
Third	Fayette	86	9,503	16	18	370,000.00	16	137,500.00
Third	Raleigh	6	587	.....	.....	.....	.....	.....
Third	Nicholas	1	45	1	1	8,032.00	1	15,000.00
Fourth	McDowell	13	1,106	3	4	14,750.00	4	30,500.00
Fourth	Mercer	6	510	1	1	400.00	1	300.00
Fourth	Mingo	5	165	.....	.....	.....	.....	.....
Fifth	Barbour	2	38	.....	2	1,100.00	.....	.....
Fifth	Preston	2	235	.....	.....	.....	.....	.....
Fifth	Taylor	4	282	.....	1	8,000.00	.....	.....
	Totals	171	16,405	39	57	\$ 745,551.00	40	\$340,550.00

STRIKES AT THE COAL MINES IN WEST VIRGINIA FOR THE YEAR ENDING JUNE 30, 1903.

COUNTY.	NAME OF MINE.	Date of		Total employees before strike or lockout.	Total employees for whom strike was undertaken.	Total employees thrown out of employ by S. or L. O.	Termination		Were works closed in consequence.	Length of time closed. (working days).	Cause or object of strike.	How was strike settled.	Loss to employees.	Loss to operators.
		Beginning	Termination				Beginning	Termination						
Hancock..	Marquet No. 2.	Feb. 1, 1903	Feb. 4, 1903	25	25	25	Feb. 1, 1903	Feb. 4, 1903	No	.....	Higher wages.	Strikers replaced by new men	100 \$	100
Harrison..	Cork	June 7, 1902	Sep. 25, 1902	6	42	42	June 7, 1902	Sep. 25, 1902	Yes	94	Called by U. M. W.	Men returned to work	8,000	8,000
	Girard.....	June 2, 1903	June 4, 1903	2	56	56	June 2, 1903	June 4, 1903	Yes	1	Two Italians discharged ...	Strikers replaced by new men .....	.....	.....
Marshall..	Hitchman	Apr. 1, 1903	May 23, 1903	155	155	155	Apr. 1, 1903	May 23, 1903	Yes	47	To adjust run-of-mine per-centage	Men returned to work	22,000	none.
"	Boggs Run.	Apr. 1, 1903	May 4, 1903	55	50	55	Apr. 1, 1903	May 4, 1903	Yes	30	Demand for increase	By granting demand	3,000	450
"	Glendale	Apr. 1, 1903	May 12, 1903	98	98	98	Apr. 1, 1903	May 12, 1903	Yes	36	Wage scale being adjusted.	Men returned to work .....	.....	.....
"	Moundsville....	Apr. 1, 1903	May 25, 1903	60	90	90	Apr. 1, 1903	May 25, 1903	Yes	48	Miners wanted Ohio scale adopted	" " " "	10,000	.....
Ohio.....	Richland	Apr. 1, 1903	Apr. 15, 1903	38	40	40	Apr. 1, 1903	Apr. 15, 1903	Yes	12	Miners wanted Ohio scale adopted	Scale slightly modified and adopted	1,000	100
"	Elm Grove.....	Apr. 1, 1903	May 5, 1903	110	110	110	Apr. 1, 1903	May 5, 1903	Yes	30	Miners wanted Ohio scale adopted	Scale slightly modified and adopted	5,500	5,000
"	McKinley	Apr. 1, 1903	Apr. 29, 1903	45	.....	.....	Apr. 1, 1903	Apr. 29, 1903	Yes	28	Miners wanted Ohio scale adopted	Men returned to work	5,000	.....
"	La Belle	Apr. 1, 1903	.....	57	57	57	Apr. 1, 1903	.....	No	.....	Increased wages	Not settled	6,000	nothing
Kanawha..	Cannelton No. 2	June 1, 1902	Oct. 1, 1902	176	176	176	June 1, 1902	Oct. 1, 1902	Yes	100	Called by U. M. W.	By recognition of union	20,000	20,000
"	Black Cat	June 6, 1902	Nov. 18, 1902	54	54	54	June 6, 1902	Nov. 18, 1902	Yes	129	" " " "	Partial increase granted .....	.....	.....
"	Graham	June 1, 1902	Oct. 22, 1902	60	60	60	June 1, 1902	Oct. 22, 1902	Yes	117	" " " "	Huntington scale signed	2,000	2,800
"	Queen Shoals..	June 7, 1902	Oct. 20, 1902	105	.....	.....	June 7, 1902	Oct. 20, 1902	No	.....	" " " " .....	By compromise and concessions .....	.....	.....
"	Peacock	June 7, 1902	Oct. 15, 1902	15	15	15	June 7, 1902	Oct. 15, 1902	Yes	90	" " " "	By granting demands	2,700	1,200
"	Mill Branch	June 7, 1902	Oct. 9, 1902	80	45	45	June 7, 1902	Oct. 9, 1902	P. Y.	.....	" " " " .....	Men returned to work	6,410	.....
"	K. & H. No. 101	June 7, 1902	Oct. 6, 1902	95	135	135	June 7, 1902	Oct. 6, 1902	P. Y.	45	" " " "	On company's terms	9,075	.....
"	K. & H. No. 103	June 7, 1902	Oct. 6, 1902	135	125	125	June 7, 1902	Oct. 6, 1902	P. Y.	45	" " " "	" " " "	8,400	.....
"	K. & H. No. 105	June 7, 1902	Oct. 6, 1902	125	150	150	June 7, 1902	Oct. 6, 1902	P. Y.	45	" " " "	" " " "	22,500	.....
"	K. & H. No. 106	June 7, 1902	Oct. 6, 1902	150	150	150	June 7, 1902	Oct. 6, 1902	Yes	104	" " " " .....	" " " " .....	.....	.....

STRIKES AT THE COAL MINES IN WEST VIRGINIA FOR THE YEAR ENDING JUNE 30, 1903.—Continued.

COUNTY.	NAME OF MINE.	Date of		Total employees before strike or lockout.	Total employees or strikers locked out.	Total employees for whom strike was undertaken.	Total employees thrown out of employ't by P. or L. O.	Termination		Were works closed in consequence.	Length of time closed. (working days).	Cause or object of strike.	How was strike settled.	Loss to employees.	Loss to operators.
		Beginning	Termination					Beginning	Termination						
Payette.	Edgewater No. 2	56	1902	Oct. 27	1902	Yes	120	Called by U. M. W.	Men returned to work.	Men returned to work.	120	Called by U. M. W.	Men returned to work.	\$ 12,000	\$ 3,000
	Eagle No. 3	57	1902	Oct. 27	1902	Yes	75	Called by U. M. W.	Men returned to work.	Men returned to work.	75	Called by U. M. W.	Men returned to work.	15,000	3,000
	St. Clair No. 1 & 2	125	1902	Oct. 27	1902	Yes	75	Called by U. M. W.	Men returned to work.	Men returned to work.	75	Called by U. M. W.	Men returned to work.	15,000	3,000
	Vulcan	200	1902	Nov. 17	1902	Yes	130	Called by U. M. W.	Demands granted.	Demands granted.	130	Called by U. M. W.	Demands granted.	15,000	3,000
	South	20	1902	Nov. 17	1902	Yes	130	Called by U. M. W.	Demands granted.	Demands granted.	130	Called by U. M. W.	Demands granted.	15,000	3,000
	Excelsior	55	1902	Nov. 17	1902	Yes	130	Called by U. M. W.	Demands granted.	Demands granted.	130	Called by U. M. W.	Demands granted.	15,000	3,000
	Dugby	86	1902	Oct. 26	1902	Yes	102	Called by U. M. W.	Increase of wages granted.	Increase of wages granted.	102	Called by U. M. W.	Increase of wages granted.	15,000	3,000
	Mt. Carbon No. 1	97	1902	Oct. 26	1902	Yes	102	Called by U. M. W.	Increase of wages granted.	Increase of wages granted.	102	Called by U. M. W.	Increase of wages granted.	15,000	3,000
	Mt. Carbon No. 5	30	1902	Oct. 26	1902	Yes	102	Called by U. M. W.	Increase of wages granted.	Increase of wages granted.	102	Called by U. M. W.	Increase of wages granted.	15,000	3,000
	G. Mt. No. 1 & 2	405	1902	July 1	1902	No	148	Called by U. M. W.	Called off by U. M. W.	Called off by U. M. W.	148	Called by U. M. W.	Called off by U. M. W.	5,000	7,500
	Gaymont	45	1902	Dec. 1	1902	Yes	44	Called by U. M. W.	Men returned to work.	Men returned to work.	44	Called by U. M. W.	Men returned to work.	5,000	7,500
	Elmo	57	1902	July 25	1902	Yes	44	Called by U. M. W.	Men returned to work.	Men returned to work.	44	Called by U. M. W.	Men returned to work.	5,000	7,500
	Michigan	125	1902	July 25	1902	Yes	44	Called by U. M. W.	Men returned to work.	Men returned to work.	44	Called by U. M. W.	Men returned to work.	5,000	7,500
	Payette	40	1902	July 25	1902	Yes	44	Called by U. M. W.	Men returned to work.	Men returned to work.	44	Called by U. M. W.	Men returned to work.	5,000	7,500
	Newlyn	31	1902	July 23	1902	Yes	40	Called by U. M. W.	Men returned to work.	Men returned to work.	40	Called by U. M. W.	Men returned to work.	5,000	7,500
	Nuttallburg & Keeneys (Y.)	175	1902	Oct. 1	1902	Yes	125	Called by U. M. W.	Men returned to work.	Men returned to work.	125	Called by U. M. W.	Men returned to work.	5,000	7,500
	Brown	116	1902	Oct. 1	1902	Yes	125	Called by U. M. W.	Men returned to work.	Men returned to work.	125	Called by U. M. W.	Men returned to work.	5,000	7,500
	Boone	52	1902	Nov. 1	1902	Yes	150	Called by U. M. W.	Men returned to work.	Men returned to work.	150	Called by U. M. W.	Men returned to work.	5,000	7,500
	Ballinger No. 1	117	1902	Nov. 1	1902	Yes	48	Called by U. M. W.	Men returned to work.	Men returned to work.	48	Called by U. M. W.	Men returned to work.	5,000	7,500
	Ballinger No. 2	43	1902	Nov. 1	1902	Yes	180	Called by U. M. W.	Men returned to work.	Men returned to work.	180	Called by U. M. W.	Men returned to work.	5,000	7,500
	Smokeless	75	1902	Nov. 1	1902	Yes	43	Called by U. M. W.	Men returned to work.	Men returned to work.	43	Called by U. M. W.	Men returned to work.	5,000	7,500
	Dulree	72	1902	Nov. 1	1902	Yes	90	Called by U. M. W.	Men returned to work.	Men returned to work.	90	Called by U. M. W.	Men returned to work.	5,000	7,500
	Quarrier	15	1902	Nov. 1	1902	Yes	300	Called by U. M. W.	Men returned to work.	Men returned to work.	300	Called by U. M. W.	Men returned to work.	5,000	7,500
	Cliff Top	172	1902	Nov. 23	1902	No	110	Called by U. M. W.	Men returned to work.	Men returned to work.	110	Called by U. M. W.	Men returned to work.	5,000	7,500
	New Caperton	100	1902	Nov. 23	1902	No	110	Called by U. M. W.	Men returned to work.	Men returned to work.	110	Called by U. M. W.	Men returned to work.	5,000	7,500
	Echo	200	1902	Oct. 15	1902	Yes	35	Called by U. M. W.	Men returned to work.	Men returned to work.	35	Called by U. M. W.	Men returned to work.	5,000	7,500
	Central	125	1902	Oct. 15	1902	Yes	35	Called by U. M. W.	Men returned to work.	Men returned to work.	35	Called by U. M. W.	Men returned to work.	5,000	7,500
	Brooklyn	86	1902	Aug. 10	1902	Yes	30	Called by U. M. W.	Men returned to work.	Men returned to work.	30	Called by U. M. W.	Men returned to work.	5,000	7,500
	Red Ash	104	1902	Aug. 1	1902	Yes	30	Called by U. M. W.	Men returned to work.	Men returned to work.	30	Called by U. M. W.	Men returned to work.	5,000	7,500
	Rush Run	131	1902	Aug. 10	1902	Yes	35	Called by U. M. W.	Men returned to work.	Men returned to work.	35	Called by U. M. W.	Men returned to work.	5,000	7,500

STRIKES AT THE COAL MINES IN WEST VIRGINIA FOR THE YEAR ENDING JUNE 30, 1903.—Continued.

COUNTY.	NAME OF MINE.	Total employees before strike or lockout.	Total employees locked out.	Total employees for whom strike was undertaken.	Total employees thrown out of employ't by S. or L. O.	Date of		Were works closed in consequence.	Length of time closed. (working days.)	Cause or object of strike.	How was strike settled.	Loss to employees.	Loss to operators.
						Beginning	Termination						
McDowell.	Roanoke.	300	...	...	210	June 7, 1902	June 9, 1902	Yes	1	Called by U. M. W.	Men returned to work.	\$	\$
	Greenbrier	180	...	...	100	June 7, 1902	No	Yes	...	"	"	...	...
	McDowell.	135	...	...	125	June 7, 1902	Sep. 1, 1902	No	...	"	"	...	...
	Ashland.	273	...	...	250	June 7, 1902	Sep. 4, 1902	Yes	14	"	"	1,750	30,000
	Big Four.	53	...	...	53	June 7, 1902	July 10, 1902	Yes	30	"	"	...	...
	Vaughan.	60	...	...	60	June 7, 1902	...	...	...	"	"	...	...
	Short Creek.	23	...	...	23	June 7, 1902	Aug. 30, 1902	Yes	45	"	"	...	...
Mercer.	Pocahontas	8	...	...	8	June 7, 1902	Sep. 1, 1902	Yes	75	"	"	...	...
	Cletus.	20	...	...	15	June 7, 1902	Sep. 1, 1902	No	...	"	"	...	...
	Black Stone.	27	...	...	27	June 7, 1902	Sep. 8, 1902	No	...	"	"	...	...
	Caswell.	375	...	375	350	June 7, 1902	Sep. 4, 1902	No	...	"	"	2,000	2,500
	Louisville.	160	...	...	100	June 7, 1902	Sep. 4, 1902	No	...	"	"	2,000	2,000
	Sagamore.	...	...	...	30	June 7, 1902	Sep. 15, 1902	No	...	"	"	...	...
	Yukon.	20	...	...	10	June 7, 1902	Sep. 1, 1902	Yes	40	"	"	400	300
Mingo.	Pinnacle.	40	...	...	10	Aug. 7, 1902	Aug. 12, 1902	No	...	"	"	...	...
	Crane Creek.	40	...	...	10	Aug. 7, 1902	Aug. 12, 1902	No	...	"	"	...	...
	Camp Branch.	35	...	20	20	June 7, 1902	Sep. 1, 1902	Yes	37	"	"	...	...
	Freeport.	23	...	25	25	June 7, 1902	Sep. 1, 1902	Yes	60	"	"	...	...
	Fear.	35	...	20	20	June 7, 1902	Sep. 1, 1902	Yes	37	"	"	...	...
	Mingo.	37	...	20	20	June 7, 1902	Sep. 1, 1902	Yes	37	"	"	...	...
	Grapevine.	90	...	80	80	June 7, 1902	Sep. 1, 1902	Yes	9	Lockout to prevent strike.	Works resumed.	...	...
Barbour.	Valley.	...	...	20	20	Sep. 9, 1902	Oct. 15, 1902	Yes	12	Increased wages	Men returned to work on our terms.	800	...
	Lillian.	...	...	18	18	June 2, 1903	June 15, 1903	Yes	13	Men ref'd come up to contract	Men returned to work on our terms.	300	...
Preston.	South Side.	200	...	1	150	May 1, 1902	Aug. 1, 1902	Yes	78	Objectionable check w'man	Adjusted	8000	...
Taylor.	North Side.	85	...	85	85	May 1, 1902	Aug. 1, 1902	Yes	65	Sympathy for S. S. Miners.	On Company's terms.	...	...
	Sandlick.	91	...	91	24	June 7, 1902	Aug. 22, 1902	Yes	89	Called by U. M. W.	Employ'g'n fully all new lab'r	...	...
	Foster.	24	...	24	107	June 7, 1902	July 4, 1902	Yes	22	"	Men returned to work	...	...
	Rosemont.	108	...	92	60	June 7, 1902	Sep. 15, 1902	No	...	"	...	...	...
	T. B. Davis.	92	...	92	60	June 7, 1902	Sep. 15, 1902	No	...	"	...	...	...

DIRECTORY OF THE MINES.

*DIRECTORY OF THE MINES IN THE STATE OF WEST VIRGINIA FOR THE YEAR ENDING
JUNE 30th, 1903.*

FIRST DISTRICT, I. M. KELLY, INSPECTOR.

No.	COUNTY.	Name of Mine.	Kind of opening.	Name of Company.	Postoffice Address.
1	Brooke	Blanche	drift	Panhandle Coal Co.	Collier
2	"	Wiota	drift	Wiota Coal Co.	Lazearville
3	"	Lewis	drift	The Lewis Mines	Wellsburg
4	"	Nellie	drift	Wells Coal Co.	Wheeling
5	Hancock	Porter No. 1	drift	M. M. Cullen	New Cumberl'd.
6	"	Marquet	drift	The Marquet Coal Co.	New Cumberl'd.
7	Harrison	Pinnickinnick No. 1	slope	Clarksburg Fuel Co.	Fairmont
8	"	Pk. No. 2 or Fall Run	drift	Clarksburg Fuel Co.	Fairmont
9	"	Dixie	drift	Clarksburg Fuel Co.	Fairmont
10	"	Two Lick	drift	Clarksburg Fuel Co.	Fairmont
11	"	Interstate	drift	Clarksburg Fuel Co.	Fairmont
12	"	O'Neil No. 1	drift	Clarksburg Fuel Co.	Fairmont
13	"	O'Neil No. 2	drift	Clarksburg Fuel Co.	Fairmont
14	"	Enterprise	drift	Fairmont Coal Co.	Fairmont
15	"	Viropa	drift	Fairmont Coal Co.	Fairmont
16	"	Ehlen	drift	Fairmont Coal Co.	Fairmont
17	"	Solon	drift	Fairmont Coal Co.	Fairmont
18	"	Gypsy	drift	Fairmont Coal Co.	Fairmont
19	"	Harbert	drift	Fairmont Coal Co.	Fairmont
20	"	Maulsby	drift	Fairmont Coal Co.	Fairmont
21	"	Meadow Brook	drift	Fairmont Coal Co.	Fairmont
22	"	Farnum	drift	Fairmont Coal Co.	Fairmont
23	"	Glen Falls	drift	Fairmont Coal Co.	Fairmont
24	"	Dunham	drift	Fairmont Coal Co.	Fairmont
25	"	Lynch	drift	Fairmont Coal Co.	Fairmont
26	"	West Fork (idle)	drift	Fairmont Coal Co.	Fairmont
27	"	Summit	drift	Fairmont Coal Co.	Fairmont
28	"	Columbia	drift	Fairmont Coal Co.	Fairmont
29	"	Ocean	drift	Fairmont Coal Co.	Fairmont
30	"	Riverdale	drift	Fairmont Coal Co.	Fairmont
31	"	Howard (idle)	drift	Pittsbg & Fair'nt Fuel Co.	Fairmont
32	"	Perry No. 1	drift	Pittsbg & Fair'nt Fuel Co.	Fairmont
33	"	Perry No. 2	drift	Pittsbg & Fair'nt Fuel Co.	Fairmont
34	"	Perry No. 3	drift	Pittsbg & Fair'nt Fuel Co.	Fairmont
35	"	Fairmore	drift	Fairmont & Balt. C. & C. Co.	Adamston
36	"	Girard	drift	Cook C. & C. Co.	Meadowbrook
37	"	Pooz No. 1	drift	Pittsbg & Fair'nt Coal Co.	Lumberport
38	"	Pooz No. 2 or Lucas	drift	Pittsbg & Fair'nt Coal Co.	Lumberport
39	"	Erie	drift	Meadow Brook C. & C. Co.	Fairmont
40	"	Waldo	drift	Clark Coal Co.	Fairmont
41	"	Cork	drift	Cook & Hart Coal Co.	Fairmont
42	"	Rosebud	drift	Rose Bud Coal Co.	Rosebud
43	"	Byron No. 1	drift	Hutchinson Fuel Co.	Fairmont
44	"	Byron No. 2	drift	Hutchinson Fuel Co.	Fairmont
45	"	Phoenix	slope	Phoenix C. M'g & Coke Co.	Clarksburg
46	"	Solon-Lowery	slope	Solon-Lowery Coal Co.	Clarksburg
47	"	Lukens	drift	Lukens Coal Co.	Clarksburg
48	"	Chieftain No. 1	drift	Chieftain Coal Co.	Wilsonburg
49	"	Pitcairn (being op'nd)	drift	Pitcairn Coal Co.	Clarksburg
50	Marion	Murray	drift	Fairmont Coal Co.	Fairmont
51	"	Montana	drift	Fairmont Coal Co.	Fairmont
52	"	Aurora	drift	Fairmont Coal Co.	Fairmont
53	"	West Fairmont	shaft	Fairmont Coal Co.	Fairmont
54	"	O'Donnell	drift	Fairmont Coal Co.	Fairmont
55	"	New England	drift	Fairmont Coal Co.	Fairmont
56	"	Gaston	drift	Fairmont Coal Co.	Fairmont
57	"	Monongah No. 2	slope	Fairmont Coal Co.	Fairmont
58	"	Monongah No. 3	drift	Fairmont Coal Co.	Fairmont
59	"	Monongah No. 5	drift	Fairmont Coal Co.	Fairmont
60	"	Monongah No. 6	slope	Fairmont Coal Co.	Fairmont
61	"	Pennois	drift	Fairmont Coal Co.	Fairmont
62	"	Marion	drift	Fairmont Coal Co.	Fairmont
63	"	Anderson	drift	Fairmont Coal Co.	Fairmont

*NAME OF SUPERINTENDENT, NAME OF MINE BOSS, SEAMS
WORKED AND THICKNESS, AND TOTAL NUMBER
OF INSIDE EMPLOYEES.*

Name of Superintendent.	Name of Mine Boss.	Name of Coal Bed Worked.	Thickness Ft. In.	Kind of Ventilation.	Total Inside Employees.	No.
David R. Thomas.....	David R. Thomas	Pittsburg.	4-6....	furnace...	10	1
J. R. Spruce.....	Geo. Gilchrist.....	Pittsburg.	4-6....	furnace...	34	2
J. J. Walsh, Mgr	Posey Cheek.....	Pittsburg.	5-0....	fan	14	3
Geo. Colborn.....	Geo. Colborn.....	Pittsburg.	4-8....	basket....	11	4
M. M. Cullea.....	I. N. Cullen.....	No. 6....	4-0....	furnace...	13	5
C. F. Wagoner.....	Wm. Lidyard.....	No. 7a....	3-8....	fan.....	85	6
J. E. Hamilton.....	Frank Flaherty.....	Pittsburg.	7-0....	fan.....	142	7
H. H. Watson.....	Wm. Vickers.....	Pittsburg.	7-0....	furnace...	25	8
J. L. Meredith.....	J. L. Meredith.....	Pittsburg.	7-0....	furnace...	29	9
Chas. E. Starr.....	Tony Starr.....	Pittsburg.	7-0....	fan.....	43	10
Lowell Childs.....	J. C. Jenkins.....	Pittsburg.	7-0....	fan.....	52	11
J. W. Parker.....	O. J. Fowler.....	Pittsburg.	7-0....	fan.....	70	12
J. W. Parker.....	S. P. Rowand.....	Pittsburg.	7-0....	fan.....	67	13
G. W. Fleming.....	Wm. Gantz.....	Pittsburg.	7-0....	fan.....	120	14
G. W. Fleming.....	G. W. Eliason.....	Pittsburg.	7-0....	fan.....	68	15
Thomas Jarrett, Jr.....	H. S. Colburn.....	Pittsburg.	7-0....	2 fans....	51	16
Thomas Jarrett, Jr.....	W. J. B. Rollins.....	Pittsburg.	7-0....	fan	60	17
C. F. Ice.....	Bert Russe l.....	Pittsburg.	7-0....	fan.....	148	18
C. F. Ice.....	Jas. Abercrombia.....	Pittsburg.	7-0....	fan.....		19
C. F. Ice.....	N. H. Hacker.....	Pittsburg.	7-0....	fan.....	35	20
P. B. Robinson.....	E. T. Worcester.....	Pittsburg.	7-0....	fan.....	56	21
H. H. Watson.....	P. J. McAndrew.....	Pittsburg.	7-0....	fan.....	46	22
H. H. Watson.....	W. B. Sims.....	Pittsburg.	7-0....	fan.....	55	23
H. H. Watson.....	Chas. Vickers.....	Pittsburg.	7-0....	fan.....	42	24
C. E. Starr.....	M. H. Leach.....	Pittsburg.	7-0....	fan.....	34	25
Wm. Goodnite.....	Wm. Goodnite.....	Pittsburg.	7-0....	fan.....	30	26
J. H. Nuzum.....	R. A. Brown.....	Pittsburg.	7-0....	fan.....		27
E. P. Goedecke.....	U. B. Lakesmith.....	Pittsburg.	7-0....	fan.....	90	28
H. S. Toothman.....	D. A. Wilson.....	Pittsburg.	7-0....	fan.....	106	29
E. H. Williams.....	Otis Jacoby.....	Pittsburg.	7-0....	fan.....	59	30
E. H. Williams.....	Otis Jacoby.....	Pittsburg.	6-0....	natural....	61	31
E. H. Williams.....	Floyd Gandv.....	Pittsburg.	7-6....	fan.....		32
W. A. Somerville.....	T. J. Westmoreland.....	Pittsburg.	7-0....	fan.....	27	33
W. H. Miller, C. E.....	W. H. Stuart.....	Pittsburg.	7-6....	fan.....	26	34
C. F. Ice.....	G. L. Lowe.....	Pittsburg.	8-0....	fan.....	95	35
C. F. Ice.....	G. L. Lowe.....	Pittsburg.	9-10....	f n.....	47	36
L. L. Crawford.....	C. D. M. Kramer.....	Pittsburg.	8-6....	fan.....	57	37
Isham Keith.....	J. J. Odell.....	Pittsburg.	8-6....	fan.....	9	38
Thos. G. Cook.....	Thos. G. Cook.....	Pittsburg.	9-0....	fan.....	43	39
Sam Cromer.....	W. N. Malone.....	Pittsburg.	9-0....	fan.....	61	40
W. G. H. Crawford.....	W. B. Malone.....	Pittsburg.	8-6....	furnace...	49	41
W. G. H. Crawford.....	W. B. Malone.....	Pittsburg.	7-6....	fire basket.	12	42
John J. Elliott.....	E. Muir.....	Pittsburg.	6-0....	fan.....	44	43
Matthew Mannix.....	Benj. Monroe.....	Pittsburg.	6-0....	fan.....		44
John Temple.....	Patrick Pickett.....	Pittsburg.	7-4....	fan.....	14	45
J. W. Grantham.....	Wm. Goodfellow.....	Pittsburg.	7-3....	fan.....	65	46
Jas. Jenkins.....	Jas. Jenkins.....	Pittsburg.	7-6....	fire basket.	21	47
J. H. Bainbridge.....	W. N. Malone.....	Pittsburg.	7-4....	fan.....	18	48
C. E. Gaskill.....	W. M. Gaskill.....	Pittsburg.	8-6....	furnace...	49	49
C. E. Gaskill.....	Mike Freeman.....	Pittsburg.	7-0....	fan.....		50
J. J. Brennen.....	S. R. Fetty.....	Pittsburg.	7-0....	furnace...	179	51
J. C. McKinney.....	Ed. Jenkins.....	Pittsburg.	7-0....	fan.....	25	52
Geo. T. Watson.....	J. C. Thompson.....	Pittsburg.	7-0....	2 fans....	146	53
Geo. T. Watson.....	C. H. Tarleton.....	Pittsburg.	7-0....	natural....	29	54
A. J. Ruckman.....	Thos. Killeen.....	Pittsburg.	7-0....	fan.....	270	55
A. J. Ruckman.....	James Rodgers.....	Pittsburg.	7-0....	fan.....	144	56
A. J. Ruckman.....	Thos. Killeen.....	Pittsburg.	7-0....	2 fans....	2&5, 260	57
A. J. Ruckman.....	Thos. Donlin.....	Pittsburg.	7-0....	2 fans....		58
T. S. Haymond.....	John C. Riggs.....	Pittsburg.	7-0....	fan.....	237	59
T. S. Haymond.....	Geo. B. Skinner.....	Pittsburg.	7-0....	fan.....	142	60
T. S. Haymond.....	Geo. Coburn.....	Pittsburg.	7-0....	fan.....	79	61
T. S. Haymond.....	Geo. Coburn.....	Pittsburg.	7-0....	furnace...	15	62
T. S. Haymond.....	Geo. Coburn.....	Pittsburg.	7-0....	fan.....	99	63

*DIRECTORY OF THE MINES IN THE STATE OF WEST VIRGINIA FOR THE YEAR ENDING
JUNE 30th, 1903.*

No	COUNTY.	Name of Mine.	Kind of opening.	Name of Company.	Postoffice Address.
64	Marion.....	Highland..	drift	Fairmont Coal Co.....	Fairmont.....
65	"	Middleton	drift	Fairmont Coal Co.....	Fairmont.....
66	"	Chiefton	drift	Fairmont Coal Co.....	Fairmont.....
67	"	Hutchinson..	drift	Fairmont Coal Co.....	Fairmont.....
68	"	King	drift	Virginia & Pittsburg C. & C. Co.....	Fairmont.....
69	"	Chatham No. 1.	shaft	George's Creek Coal & Iron Co.....	Farmington...
69A	"	Chatham No. 2.	shaft	George's Creek Coal & Iron Co.....	Farmington...
70	"	Federal No. 1.....	shaft	Federal Coal & Coke Co.....	Grays Flats...
71	"	Stafford.....	shaft	New Central C. Co.....	Fairmont.....
72	"	Kilarn	drift	Kilarn C. & C. Co.....	Everson.....
73	Monongalia.	Opekiska.....	drift	Opekiska C. & C. Co.....	Opekiska.....
74	"	Beechwood	drift	Fairmont Coal Co.....	Fairmont.....
75	"	Richard	drift	West Virginia Coal Co.....	Morgantown...
76	"	Deckers Creek	drift	Deckers Creek C. & C. Co.....	Morgantown...
77	"	Fulmer.....	drift	A. C. Fulmer & Co.....	Morgantown...
78	Marshall ...	Hitchman.....	slope	Hitchman C. & C. Co.....	Wheeling.....
79	"	Boggs Run	drift	Boggs Run M. & Mfg Co.....	Wheeling.....
80	"	Benwood	drift	Wheeling Steel & Iron Co.....	Wheeling.....
81	"	Glendale	shaft	Glendale Coal Co.....	Glendale.....
82	"	Moundsville	shaft	Mound Coal Co.....	Wheeling.....
83	Ohio.....	Central.....	drift	Jochum & Co.....	Wheeling.....
84	"	Whitaker.....	drift	W. H. Kasley.....	Wheeling.....
85	"	Richland.....	drift	Richland Coal Works	Wheeling.....
86	"	Elm Grove.....	shaft	Elm Grove Coal Co.....	Elm Grove.....
87	"	Manchester.....	drift	Reymann Brewing Co.....	Wheeling.....
88	"	McKinley.....	drift	Wheeling Steam Coal Co.....	Wheeling.....
89	"	La Belle	drift	La Belle Iron Works..	Wheeling.....

SECOND DISTRICT, EARL A. HENRY, INSPECTOR.

90	Kanawha....	Jones.....	drift	Falling Rock Cannel C. Co.....	Weir.....
91	"	Graham.....	drift	Keystone Coal Co.....	Graham Mines.
92	"	Queen Shoals.....	drift	Elk Coal Co.....	Queen Shoals..
93	"	Morris Creek No. 1	drift	Elk Coal Co.....	Queen Shoals..
94	"	Morris Creek No. 2	drift	Elk Coal Co.....	Queen Shoals..
95	"	Clendenin (be'g op'd).....	drift	Clendenin C. & C. Co.....	Queen Shoals..
96	"	Peacock	drift	Geo. T. Tyler.....	Graham Mines.
97	"	Mill Creek	drift	Mill Creek Cannel Coal Co.....	Charleston...
98	"	Black Hawk	drift	Black Hawk Coal Co.....	Black Hawk...
99	"	Spg Fork (abandoned).....	drift	Campbells Creek Coal Co.....	Malden.....
100	"	Calderwood.....	drift	Campbells Creek Coal Co.....	Malden.....
101	"	Co-operative.....	drift	Campbells Creek Coal Co.....	Malden.....
102	"	New Diamond.....	drift	Diamond Coal Co.....	Diamond.....
103	"	Quincy.....	drift	Quincy Coal Co.....	Quincy.....
104	"	Mile Branch.....	drift	Mile Branch Coal Co.....	Monarch.....
105	"	K. & H. No. 101	drift	Kanawha & Hocking C. & C. Co.....	Cedar Grove...
106	"	K. & H. No. 103.....	drift	Kanawha & Hocking C. & C. Co.....	Cedar Grove...
107	"	K. & H. No. 104.....	drift	Kanawha & Hocking C. & C. Co.....	Cedar Grove...
108	"	K. & H. No. 105.....	drift	Kanawha & Hocking C. & C. Co.....	Cedar Grove...
109	"	K. & H. No. 105x.....	drift	Kanawha & Hocking C. & C. Co.....	Cedar Grove...
110	"	K. & H. No. 106.....	drift	Kanawha & Hocking C. & C. Co.....	Cedar Grove...
111	"	K. & H. No. 108.....	drift	Kanawha & Hocking C. & C. Co.....	Cedar Grove...
112	"	K. & H. No. 108 West	drift	Kanawha & Hocking C. & C. Co.....	Cedar Grove...
113	"	K. & H. No. 109.....	drift	Kanawha & Hocking C. & C. Co.....	Cedar Grove...
114	"	K. & H. No. 110.....	drift	Kanawha & Hocking C. & C. Co.....	Cedar Grove...

NAME OF SUPERINTENDENT, NAME OF MINE BOSS, SEAMS WORKED AND THICKNESS, AND TOTAL NUMBER OF INSIDE EMPLOYEES.

Name of Superintendent.	Name of Mine Boss.	Name of Coal Bed Worked.	Thick- ness. Ft. In.	Kind of Ven- tilation	Total Inside Employees.	No.
T. S. Haymond.....	B. E. Satterfield.....	Pittsburg.....	7-0	fan.....	78	64
T. S. Haymond.....	B. E. Satterfield.....	Pittsburg.....	7-0	fan.....	84	65
T. S. Haymond.....	Wm. Keife.....	Pittsburg.....	7-0	fan.....	87	66
G. W. Fleming.....	Thos. Pollock.....	Pittsburg.....	7-0	fan.....	88	67
R. M. Hite.....	Wm. Reid.....	Pittsburg.....	9-0	fan.....	115	68
R. L. Somerville.....	Evan L. Griffiths.....	Pittsburg.....	9-6	fan.....	120	69
R. L. Somerville.....	John McNeil.....	Sewickley.....	5-6	fan.....		69A
John H. Bell.....	Hugh Marling.....	Pittsburg.....	9-0	fan.....	38	70
John Stewart.....	John Clark.....	Pittsburg.....	9-0	fan.....	34	71
C. E. Zunk.....	P. J. Rooney.....	Pittsburg.....	8-0	stack.....	18	72
R. B. Gordon.....	Frank Love.....	Pittsburg.....	8-0	natural.....	30	73
W. W. Ferguson.....	Lee Cottrell.....	Pittsburg.....	7-0	nat. & fur.....	67	74
Jas Carter.....	T. A. Matthews.....	Up. Fr p't.....	4-0	natural.....	52	75
H. A. Kuhn, Mgr.....	N. R. Smith.....	Freeport.....	4-6	furnace.....	23	76
N. R. Smith.....	N. R. Smith.....	Pittsburg.....	8-0	furnace.....	17	77
W. H. Koch.....	E. C. Pickett.....	Pittsburg.....	5-8	fan.....	135	78
Philip Kudz.....	Eugene Miller.....	Pittsburg.....	5-6	fan.....	48	79
Chalkley Dawson.....	Wm. Turnbull.....	Pittsburg.....	5-6	fan.....	47	80
T. E. Wallace.....	J. W. Smith.....	Pittsburg.....	6-0	fan.....	98	81
J. W. Berry.....	Jake Leonard.....	Pittsburg.....	6-0	fan.....	88	82
John Jochum.....	John Jochum.....	Pittsburg.....	4-8	furnace.....	4	83
W. H. Kasley.....	Wm. Magruder.....	Pittsburg.....	4-10	fan.....	19	84
John P. Gilchrist.....	John G. Aitken.....	Pittsburg.....	5-0	furnace.....	37	85
J. B. Chambers.....	W. A. McGlone.....	Pittsburg.....	5-6	fan.....	75	86
Chas. C. Schmidt.....	John Donahue.....	Pittsburg.....	5-0	fan.....	10	87
J. C. McKinley.....	Paul Leonard.....	Pittsburg.....	4-9	furnace.....	40	88
Wm. Blon.....	Wm. Blon.....	No. 5.....	5-0	furnace.....	2	89
H. G. Young.....	R. B. Young.....	Cannel.....	2-6	fan.....	29	90
P. W. Bentley.....	N. C. Posten.....	No. 5.....	5-6	furnace.....	52	91
Geo. E. Turner.....	Henry Tucker.....	N. Coalb'g.....	3-6	furnace.....	78	92
Henry Davis, Mgr.....	B. P. Thompson.....	N. Coalb'g.....	3-8	{ fan.....	53	93
Henry Davis, Mgr.....	B. P. Thompson.....	N. Coalb'g.....	3-8			94
G. W. Gaghan.....	Chas. Beane.....	.....	.....	.....	.....	95
Geo. T. Tyler.....	Henry Johnson.....	No. 5.....	6-0	natural.....	20	96
W. E. Brooks.....	W. H. Mease.....	Cannel.....	4-8	fan.....	24	97
E. H. Robertson.....	J. B. Lawrence.....	Coalburg.....	5-0	fan.....	27	98
W. V. Rensford.....	W. B. Calderwood.....	C'mplb's C.....	5-0	.....	.....	99
W. V. Rensford.....	W. B. Calderwood.....	C'mplb's C.....	5-0	fan & furn.....	88	100
W. V. Rensford.....	W. B. Calderwood.....	No. 5.....	5-0	fan.....	132	101
Arthur Robinson.....	James Hemmings.....	Winifrede.....	4-0	natural.....	32	102
Wm. Dickinson.....	B. H. Hill.....	Lewiston.....	3-0	furnace.....	27	103
John E. Norvell.....	R. A. Snead.....	Cedar Gr.....	3-0	2 fans.....	69	104
J. W. Taylor.....	Jas. Kennedy.....	No. 5.....	5-8	natural.....	77	105
J. W. Taylor.....	Walter Cuthbertson.....	Cedar Gr.....	2-9	fan.....	113	106
J. W. Taylor.....	Walter Cuthbertson.....	Cedar Gr.....	2-9	fan.....		107
J. W. Taylor.....	H. E. Taylor.....	Coalburg.....	5-0	fan.....	108	108
J. W. Taylor.....	W. F. Rowell.....	Coalburg.....	5-0	natural.....		109
J. W. Taylor.....	Wm. Grimes.....	No. 5.....	5-6	fan.....	123	110
J. W. Taylor.....	Harvey Wells.....	Coalburg.....	4-6	fan & flue.....	34	111
J. W. Taylor.....	Harvey Wells.....	Coalburg.....	4-6	natural.....		112
J. W. Taylor.....	Geo. Coyle.....	No. 5.....	5-6	fan.....	50	113
J. W. Taylor.....	Chas. Allen.....	Cedar Gr.....	2-9	fan.....	98	114

*DIRECTORY OF THE MINES IN THE STATE OF WEST VIRGINIA FOR THE YEAR ENDING
JUNE 30th, 1903.*

No.	COUNTY.	Name of Mine.	Kind of opening.	Name of Company.	Postoffice Address.
115	Kanawha..	K. & H. No. 119.....	drift	Kanawha & Hocking C. & Co.	Cedar Grove....
116	"	Cannelton No. 2.....	drift	Ca. nelson Coal Co	Cannelton
117	"	Shrewsbury No. 1....	drift	Shrewsbury & Edwards ...	Charleston
118	"	Lens Creek Nos. 1 & 2	2 dfts	The Marmet Co	Marmet
119	"	Butler & Low	2 dfts	The Marmet Co	Marmet
120	"	Winifrede Gas.....	drift	Winifrede Coal Co	Winifrede
121	"	South	drift	Winifrede Coal Co	Winifrede
122	"	North Pick	drift	Winifrede Coal Co	Winifrede
123	"	North Machine.....	drift	Winifrede Coal Co	Winifrede
124	"	West	drift	Winifrede Coal Co	Winifrede
125	"	Ronda	drift	Coalburg Colliery Co.....	Rouda
126	"	Acme	drift	Stevens Coal Co	Acme
127	"	Keystone	drift	Stevens Coal Co	Acme.....
128	"	Empire	drift	Stevens Coal Co	Acme.....
129	"	Dry Branch Nos. 1, 2 & 3	3 dfts	Dry Branch Coal Co.....	Dry Branch
130	"	Belleclare (being opened).....	drift	Belleclare Coal Co.....	Decota.....
131	"	Oakley	drift	Cardiff Coal Co	Fairfield
131D	"	Holly	drift	Holly Coal Co	Leewood
131F	"	Red Warrior	drift	Red Warrior Coal Co	Leewood.....
132	"	Cherokee	drift	Cherokee Coal Co	Leewood.....
133	"	Wake Forest	drift	Wake Forest Mining Co	Forest
134	"	Leewood No. 1.....	drift	Leewood Colliery Co	Eskdale.....
134A	"	Leewood No. 2	drift	Leewood Colliery Co	Eskdale.....
135	"	Thistle.....	drift	Thistle Coal Co	Kayford
136	"	North & South.....	2 dfts	Carbon Coal Co	Carbon
137	"	No. 1	drift	West Virginia Colliery Co	Decota.....
138	"	Raccoon	drift	Raccoon Fork Coal Co	Kayford
139	"	Gas	drift	United Colliery Co	Decota.....
140	"	Kayford No. 1.....	drift	Cabin Creek Mining Co.....	Kayford
141	"	Kayford No. 2	drift	Cabin Creek Mining Co.....	Kayford
142	"	Kayford No. 3.....	drift	Cabin Creek Mining Co.....	Kayford
143	"	Pine Grove	drift	Pine Grove Coal Co	Coalburg
144	"	Robinson Nos. 4 & 5.	2 dfts	Robinson Coal Co	Coalburg
145	"	Klondike	drift	Robinson Coal Co	Coalburg
146	"	East Bank	drift	East Bank C. & C. Co	East Bank
147	"	Belmont or Coalburg	drift	Belmont Coal Co	Crown Hill
148	"	Klondike or Lewiston	drift	Belmont Coal Co	Crown Hill
149	"	Coalburg	drift	Equitable Coal Co	Crown Hill
150	"	Kanawha	drift	Equitable Coal Co	Crown Hill
151	"	Black Cat (Coalburg)	drift	The Pawnee Coal Co	Crown Hill
152	"	Black Cat (Lewiston)	drift	The Pawnee Coal Co	Crown Hill
153	"	Scranton	drift	Scranton Splint Coal Co	Pratt
154	"	Paint Creek	drift	Paint Creek Coal Co	Pratt.....
155	"	Standard No. 1.....	drift	Standard Splint & Gas C. Co.....	Pratt
156	"	Tombsburg (being opened).....	drift	Grose Colliery Co.....	Pratt
157	"	Imperial No. 1.....	drift	Imperial Colliery Co	Burnwell
158	"	Eagle No. 1.....	drift	Greenbrier Coal Co	Pratt.....
159	"	Eagle No. 2	drift	Greenbrier Coal Co	Pratt.....
160	"	Chesapeake.....	drift	Chesapeake Mining Co	Handley
161	"	Kanawha	drift	Montgomery Coal Co	Montgomery
162	"	Blk. Band No. 1.....	drift	Kanawha & Coal River C. Co.....	Charleston
163	"	Blk. Band No. 3.....	drift	Kanawha & Coal River C. Co.....	Charleston.....
164	"	Carkin	drift	Kanawha & Coal River C. Co.....	Charleston
165	"	Kanawha Fork.....	drift	Kanawha & Coal River C. Co.....	Charleston.....
166	"	Peerless	drift	West Virginia Peerless C. Co.....	Lewiston

*NAME OF SUPERINTENDENT, NAME OF MINE BOSS, SEAMS
WORKED AND THICKNESS, AND TOTAL NUMBER
OF INSIDE EMPLOYEES.*

Name of Superintendent.	Name of Mine Boss.	Name of Coal Bed Worked.	Thickness. Ft. In.	Kind of Ventilation.	Total Inside Employees.	No.
J. W. Taylor.....	P. F. Neylan.....	No. 5.....	6-6....	natural...	25	115
Langdon Lea.....	James Devan-y.....	No. 2 Gas.	6-11...	fan.....	138	116
J. Harry Shrewsbury..	D. S. Stone.....	Lo. Kittan	4-2....	furnace...	6	117
L. W. Atkinson.....	Joseph Powers.....	Lo. Kittan	4-2....	fan.....	65	118
L. W. Atkinson.....	Wm. Bowen.....	Lo. Kittan	4-2....	fan.....	70	119
R. B. Cassady.....	John Gay.....	Peerless..	5-0....	furnace...	25	120
R. B. Cassady.....	J. S. Williams..	Winifrede	5-0....	fan.....	104	121
R. B. Cassady.....	Geo. Calvert.....	Winifrede	5-0....	fan.....	105	122
R. B. Cassady.....	Geo. Calvert.....	Winifrede	5-0....	fan.....	105	123
R. B. Cassady.....	Dan Brinkley.....	Winifrede	5-0....	fan.....	33	124
W. E. Nugen.....	Dan Morris.....	Coalburg	7-6....	furnace...	97	125
E. H. Shonk.....	Mark Foster.....	Coalburg	5-0....	fan.....	42	126
E. H. Shonk.....	J. S. Holmes.....	Lo. Kittan	5-0....	fan.....	88	127
E. H. Shonk.....	W. H. Morris.....	Lo. Kittan	5-0....	fan.....	81	128
R. C. Lewis.....	R. M. Odell.....	{ Belmont	4-6....	natural...	65	129
		{ Coalbr'g	5-6....			
		{ Peerless..	3-8....			
Fred Prichard.....	W. R. Jones.....			furnace...		130
W. G. Christmas.....	Ed. Hope.....	Lewiston.	4-6....	fan.....	27	131
J. L. Davis.....	W. W. Bradley.....	No. 2 Gas.		natural...		131D
Lee Long.....	R. O. Clark.....	No. 2 Gas.	5-6....	natural...		131F
J. C. Gilmour.....	Thos. Gosney.....	No. 2 Gas.	5-0....	furnace...	60	132
T. A. Bartlam.....	R. B. Cobb.....	Lo. Kittan	5-6....	natural...	50	133
Jas. Jenkins.....	Chas. Whiting.....	No. 2 Gas.	4-0....	furnace...	31	134
Jas. Jenkins.....	James Youell.....	No. 2 Gas.	4-0....	furnace...		134A
Jas. Kay.....	Wm. Young.....			natural...		135
K. D. Quarrier.....	Owen Meadows.....	No. 2 Gas.	5-6....	3 fans	118	136
John Holmes.....	Geo. Buckley.....	No. 2 Gas.	5-9....	natural...	80	137
Jas. Kay.....	Geo. Eastham.....	No. 2 Gas.	5-6....	furnace...	95	138
R. W. Edmunds.....	D. S. Holmes.....	Lo. Kittan	5-3....	natural...	15	139
Jas. Kay.....	J. C. Eastham.....	No. 2 Gas.	5-6....	fan.....	208	140
Jas. Kay.....	J. C. Eastham.....	No. 2 Gas.	5-6....			141
Jas. Kay.....	J. C. Eastham.....	No. 2 Gas.	5-6....			142
John Peacock.....	Peerless..	3-8....	natural...		14	143
A. M. Wooldridge.....	James Murray.....	Coalburg.	5-8....	furnace...	55	144
A. M. Wooldridge.....	James Murray.....	Coalburg.	5-8....	furnace...	21	145
P. L. Brannon.....	P. L. Brannon.....	Cdr Grove	2-10..	fan.....	30	146
J. C. Morrison.....	A. Kirby.....	Coalburg.	5-9....	fan.....	103	147
J. C. Morrison.....	G. H. Hudnall.....	Lewiston.	4-0....	fan.....		148
M. E. Schaffer.....	Ed. Hope.....	Coalburg.	5-0....	natural...	88	149
M. E. Schaffer.....	Ed. Hope.....	Kanawha	4-0....	fan.....		150
A. L. Chambers.....	Jas. H. Turner.....	Coalburg.	6-6....	fan.....	46	151
A. L. Chambers.....	Jas. H. Turner.....	Lewiston.	5-6....	fan.....		152
W. W. Mucklow.....	Ed. Dean.....	Coalburg.	6-0....	fan.....	97	153
W. W. Mucklow.....	J. R. Mucklow.....	Coalburg.	7-0....	furnace...	71	154
J. A. Straughan.....	J. A. Straughan.....	Coalburg.	8-0....	furnace...	63	155
J. C. Grisinger.....	J. C. Grisinger.....	Eagle.....	3-10..	furnace...		156
Lee Long.....	Lee Jenkins.....	Eagle.....	5-0....	fan.....	45	157
J. J. Duffy.....	C. C. Carner.....	Eagle.....	4-0....	furnace...	29	158
J. J. Duffy.....	C. C. Carner.....	No. 2 Gas.	4-0....			159
J. B. Lewis.....	Alex. Thompson.....	Kanawha	5-0....	fan.....	116	160
S. H. Montgomery.....	S. P. Johnson.....	Kanawha	4-0....	natural...	91	161
A. Mitchell.....	Chas. Snodgrass.....	Blk. Band.	3-0....	fan.....	139	162
A. Mitchell.....	C. A. Parcell.....	Blk. Band.	2-6....	furnace...	29	163
A. Mitchell.....	David Mitchell.....	Cdr Grove	3-0....	fan.....	35	164
A. Mitchell.....	C. A. Parcell.....	Coalburg	3-6....	furnace...	33	165
Geo. Henderson.....	Jos. Clark.....	Peerless..	3-0....	furnace...	21	166

*DIRECTORY OF THE MINES IN THE STATE OF WEST VIRGINIA FOR THE YEAR ENDING
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No.	COUNTY.	Name of Mine.	Kind of opening.	Name of Company.	Postoffice Address.
167	Mason...	Hope	drift.	Hope Salt & Coal Co	Mason.....
168	"	McDaniel.....	drift.	Mason City Mining Co	Mason.....
169	"	Jackson Furnace.....	drift	Liverpool Salt & Coal Co	Hartford
170	"	Hartford	slope	Hartford City Salt Co	Hartford
171	"	New Castle.....	drift	Consumers C. & M. Co	Spilman
172	"	Camden.....	drift.	Consumers C. & M. Co	Spilman
173	"	Klondike	drift.	Klondike Coal Co	Hartford
174	"	Beech Grove	drift	Beech Grove Coal Co	Mason.....
175	"	Blk. Diamond.....	drift	Thos. D. Harris C. Co	Hartford
176	Putnam...	Plymouth	drift.	Plymouth C. & M. Co	Plymouth.....
177	"	Manilla	drift	Plymouth C. & M. Co.....	Plymouth.....
178	"	Florence (abandoned)	drift.	Otto-Marmet C. & M. Co.....	Raymond City..
179	"	Pocatamico	drift.	Otto-Marmet C. & M. Co.....	Raymond City..
180	"	Big Otto (being op'ed)	drift.	Otto-Marmet C. & M. Co.....	Raymond City..
181	"	Black Betsey	drift.	Black Betsey C. & M. Co	Black Betsey ..
182	"	Oak Forest.....	slope	Oak Forest C. & M. Co.....	Oak Forest.....
183	Lincoln...	Rochester	drift	Rochester Coal Co	Hadley
184	"	No. 1.....	drift	Lincoln Coal Co.....	Huntington....

THIRD DISTRICT, EDWARD PINKNEY, INSPECTOR.

185	Fayette ...	K. & H. No. 111.	drift.	Kanawha & Hocking C. & C. Co	Longacre.....
186	"	K. & H. No. 112	drift.	Kanawha & Hocking C. & C. Co	Longacre.....
187	"	K. & H. No. 113.....	drift.	Kanawha & Hocking C. & C. Co	Longacre
188	"	K. & H. No. 114	drift.	Kanawha & Hocking C. & C. Co	Longacre.....
189	"	K. & H. No. 115	drift.	Kanawha & Hocking C. & C. Co	Longacre.....
190	"	K. & H. No. 117	drift.	Kanawha & Hocking C. & C. Co	Longacre.....
191	"	No. 1.....	drift.	Columbus Iron & Steel Co.....	Marting.....
192	"	Kanawha Gas	drift	Kanawha Gas Coal Co	Smithers.....
193	"	Boomer No. 1	drift	Boomer C. & C. Co	Boomer.....
194	"	Boomer No. 2	drift.	Boomer C. & C. Co	Boomer.....
195	"	Boomer No. 3	drift	Boomer C. & C. Co	Boomer.....
196	"	Oakland	drift.	W. R. Johnson & Co	Longacre
197	"	Morris Creek (being opened).....	drift	Morris Creek Coal Co.....	Montgomery ...
198	"	Eureka No. 5.....	drift	Gordon C. & C. Co	Montgomery ..
199	"	Eureka Nos. 1 & 2.....	2 dfts	Gordon C. & C. Co	Montgomery ..
200	"	Mecca No. 2	drift	Mecca C. & C. Co	Montgomery ..
201	"	Mecca No. 5	drift	Mecca C. & C. Co	Montgomery ..
202	"	Coal Valley.....	slope	Economy Fuel Co.....	Montgomery ..
203	"	Eagle or Crescent No. 1.....	drift.	W. R. Johnson	Crescent.....
204	"	Crescent No. 2	drift	W. R. Johnson	Crescent.....
205	"	Crescent No. 5.....	drift.	W. R. Johnson	Crescent.....
206	"	Eagle & California.....	2 dfts	The Carver Bros. Co	Eagle
207	"	Edgewater No. 1.....	drift.	The Carver Bros. Co	Eagle
208	"	Edgewater No. 5.....	drift.	The Carver Bros. Co	Eagle
209	"	Edgewater No. 2.....	drift.	The Carver Bros. Co	Eagle
210	"	Eagle No. 3.....	drift.	The Carver Bros. Co	Eagle
211	"	St. Clair No. 1.....	drift.	Gordon C. & C. Co	Eagle
212	"	St. Clair No. 2	drift.	Gordon C. & C. Co	Eagle
213	"	Diamond (idle).....	drift	Diamond Colliery Co	Mt. Carbon....
214	"	Vulcan No. 1.....	drift	The Mt. Carbon Co., Ltd.....	Powellton.....
215	"	South	drift.	The Mt. Carbon Co., Ltd	Powellton
216	"	Excelsior	drift.	The Mt. Carbon Co., Ltd	Powellton
217	"	Digby.....	drift	The Gt. Kanawha Colliery Co., Ltd.....	Mt. Carbon....
218	"	No. 1.....	drift.	The Gt. Kanawha Colliery Co., Ltd.....	Mt. Carbon....
219	"	Eagle	drift.	The Gt. Kanawha Colliery Co., Ltd	Mt. Carbon....

*NAME OF SUPERINTENDENT, NAME OF MINE BOSS, SEAMS
WORKED AND THICKNESS, AND TOTAL NUMBER
OF INSIDE EMPLOYEES.*

Name of Superintendent.	Name of Mine Boss.	Name of Coal Bed Worked.	Thickness Ft. In.	Kind of Ventilation.	Total Inside Employees.	No.
D. C. Davis.....	Henry Williams	Pittsburg	4-6....	furnace....	24	167
G. H. Gress.....	W. L. Harris	Pittsburg	4-10....	fan.....	35	168
H. F. Smith.....	Samuel Edwards	Pittsburg	4-6....	fan.....	28	169
D. E. Newton.....	Richard Jenkins	Pittsburg	4-8....	fan.....	26	170
Harry Hart.....	Harry Hart	Pittsburg	4-8....	furnace....	85	171
Harry Hart.....	Harry Hart	Pittsburg	4-8....	furnace....	172	
D. C. Bebee.....	Frank O Neil	Pittsburg	4-6....	furnace....	29	173
J. Icenbower.....	J. Harrison	Pittsburg	5-0....	Ex. steam shaft.....	30	174
Thos. D. Harris.....	John Harris	Pittsburg	4-6....	fan.....	12	175
W. C. Mitchell.....	Jos. Virgin	Pittsburg	5-6....	fan.....	161	176
W. C. Mitchell.....	Jos. Virgin	Pittsburg	5-6....	fan.....	177	
Ed. Schonebaum.....		Pittsburg	5-8....	furnace....	178	
Ed. Schonebaum.....	David Santrock	Pittsburg	5-8....	furnace....	225	179
Ed. Schonebaum.....		Pittsburg	5-8....	furnace....	180	
F. L. Tyree.....	J. W. Hargraves	Pittsburg	5-10....	furnace....	90	181
Dan L. Thomas.....	Wm. Thomas	Pittsburg	4-0....	fan.....	10	182
A. L. Puckett.....	Granville Neace	Coalburg	6-6....	furnace....	5	183
F. H. Mathews.....	J. H. Perrung	Kanawha	7-9....	furnace....	66	184

T. E. Roan.....	Ed. Littlejohn.....	No. 2 Gas.	5-4....	fan.....	103	185
T. E. Roan.....	M. B. Welch.....	No. 2 Gas.	5-3....	fan.....	108	186
T. E. Roan.....	Sidney Hilditch.....	No. 1 Gas.	4-0....	fan.....	55	187
T. E. Roan.....	Sidney Hilditch.....	No. 2 Gas.	5-0....	fan.....	62	188
T. E. Roan.....	Robt. Taylor.....	No. 2 Gas.	5-9....	fan.....	141	189
T. E. Roan.....	Ed. Fleman.....	No. 2 Gas.	4-6....	fan.....	64	190
F. M. Suplee.....	W. A. Otey.....	No. 2 Gas.	5-6....	fan.....	58	191
J. W. Moore.....	John Filbin.....	No. 2 Gas.	6-0....	furnace....	152	192
Wm. Nicholson.....	Michael Blyth.....	No. 2 Gas.	5-6....	fan.....	72	193
Wm. Nicholson.....	Larance Gardner.....	No. 1 Eagle	6-0....	fan.....	93	194
Wm. Nicholson.....	Joe Nutter.....	No. 2 Gas.	5-6....	fan.....	56	195
Thos. A. Bartlam.....	Benj. Hill.....	No. 2 Gas.	5-10....	fan & furn.	58	196
John T. Todd.....		Winifrede.	4-0....			197
Geo. Fraser.....	James Fraser.....	No. 5....	6-0....	nat. & furn.	47	198
Geo. Fraser.....	D. B. Hovery.....	No. 2 Gas.	5-0....	fan.....	75	199
Jas. E. Carver.....	W. H. Thompson.....	No. 2 Gas.	5-0....	2 fans....	144	200
Jas. E. Carver.....	Alfred Carver.....	No. 5....	6-2....	natural....	74	201
W. A. Jones.....	Calvin Morris.....	Eagle.....	4-0....	furnace....	54	202
T. A. Bartlam.....	L. M. Waters.....	Eagle.....	5-2....	fan.....	38	203
T. A. Bartlam.....		No. 2 Gas.	5-6....	natural....	15	204
T. A. Bartlam.....	John Kirby.....	No. 5....	6-0....	natural....	65	205
Enoch Carver.....	John E. Carver.....	Eagle.....	3-8....	fan.....	37	206
Enoch Carver.....	John E. Carver.....	No. 1....	3-8....	fan.....	40	207
Enoch Carver.....	John E. Carver.....	No. 5....	6-6....	furnace....	60	208
Enoch Carver.....	John E. Carver.....	No. 2 Gas.	4-0....	fan.....	54	209
Enoch Carver.....	John E. Carver.....	No. 2 Gas.	4-0....	fan.....	54	210
Geo. Frazer.....	Chas. Burns.....	Eagle.....	5-0....	fan.....	29	211
Geo. Frazer.....	Will Knight.....	No. 2 Gas.	4-6....	fan.....	57	212
		No. 2 Gas.	5-3....			213
D. T. Evans.....	John I. Absalom.....	Powellton.	6-2....	fan & nat.	151	214
D. T. Evans.....	Peyton Kincaid.....	Powellton.	7-0....	natural....	20	215
D. T. Evans.....	Thomas Thomas.....	Eagle No. 1	3-9....	fan & nat.	48	216
R. J. Stegall.....	Tom Toney.....	No. 2 Gas.	4-0....	natural....	82	217
R. J. Stegall.....	M. F. Spruce.....	No. 2 Gas.	4-0....	natural....	74	218
R. J. Stegall.....	M. F. Spruce.....	Eagle No. 1	12-10....	natural....	28	219

*DIRECTORY OF THE MINES IN THE STATE OF WEST VIRGINIA FOR THE YEAR ENDING
JUNE 30th, 1903.*

No.	COUNTY	Name of Mine.	Kind of opening.	Name of Company.	Postoffice Address.
220	Fayette	No. 5.	drift	The Gt. Kanawha Colliery Co., Ltd.	Mt. Carbon
221	"	Kimberly.....	drift	Cardiff Coal Co.	Mt. Carbon.....
222	"	Gauley Mt. No. 1. .	drift	Gauley Mountain Coal Co. .	Ansted
223	"	Gauley Mt. No. 2. .	drift	Gauley Mountain Coal Co. .	Ansted
224	"	Loup Creek (being opened)	drift	Loup Creek Colliery Co.	Robson
225	"	Gaymont	drift	New Castle Coal Co.	Gaymont
226	"	Elmo	drift	Elmo C. & C. Co.	Elmo
227	"	Sunnyside	drift	The Isabel C. & C. Co.	Elmo.....
228	"	Michigan	drift	Michigan Coal Co.	Fayette
229	"	Fayette	drift	Fayette C. & C. Co.	Fayette
230	"	Kaymoor No. 1.	drift	The Low Moor Iron Co.	Kay Moor.....
231	"	Kaymoor No. 2	drift	The Low Moor Iron Co.	Kay Moor.....
232	"	Newlyn	drift	Newlyn C. & C. Co.	Fayette
233	"	Nuttallburg	drift	Nuttallburg C. & C. Co.	Nuttallburg ..
234	"	Keeneys Creek	drift	Nuttallburg C. & C. Co.	Nuttallburg ..
235	"	Brown	drift	Brown C. Co.	Nuttallburg ..
236	"	Boone	drift	Boone C. & C. Co.	Boone
237	"	Ballinger No. 1.	drift	Ballinger Coal Co.	Nuttallburg ..
238	"	Ballinger No. 2.	drift	Ballinger Coal Co.	Nuttallburg ..
239	"	Blume	drift	Blume C. & C. Co.	Lookout
240	"	Smokeless	drift	Smokeless Coal Co.	Winona
241	"	Dubree	drift	Rothwell Coal Co.	Dubree
242	"	Quarrier (idle).....	drift	Rothwell Coal Co.	Dubree
243	"	South Side	drift	Victoria Coal & Coke Co.	Caperton
244	"	North Side	drift	Victoria Coal & Coke Co.	Caperton
245	"	New Caperton.....	drift	Chapman C. & C. Co.	Elverton
246	"	Cliff Top	drift	Longdale Iron Co.	Sewell
247	"	Cunard	drift	Cunard Coal Co.	Rush Run.....
248	"	Fire Creek	drift	Fire Creek C. & C. Co.	Fire Creek
249	"	Echo	drift	Echo C. & C. Co.	Beury
250	"	Central No. 1.	drift	Gordon C. & C. Co.	Fire Creek
251	"	Brooklyn	drift	Brooklyn Coal Co.	Rush Run.....
252	"	Red Ash	drift	Red Ash Coal Co.	Rush Run.....
253	"	Rush Run.....	drift	Rush Run C. & C. Co.	Rush Run.....
254	"	Erskine	drift	The Thurmond Coal Co.	Concho
255	"	Thurmond	drift	The Thurmond Coal Co.	Concho
256	"	Stone Cliff	drift	Berry C. & C. Co.	Stone Cliff
257	"	Big Bend	drift	Big Bend Coal Co.	Dimmock
258	"	Beechwood	drift	Beechwood C. & C. Co.	Claremont
259	"	Keystone	drift	Beechwood C. & C. Co.	Claremont
260	"	Alaska	drift	Alaska C. & C. Co.	Claremont
261	"	Slater	drift	New River Colliery Co.	Thayer
262	"	Buffalo No. 1.	drift	Ephraims Creek C. & C. Co.	Thayer
263	"	Slater	drift	Ephraims Creek C. & C. Co.	Thayer
264	"	Harvey No. 1.	drift	Harvey C. & C. Co.	Harvey
265	"	Harvey No. 2.	drift	Harvey C. & C. Co.	Harvey
266	"	Prudence	drift	Prudence Coal Co.	Prudence
267	"	Star	drift	The Star C. & C. Co.	Red Star
268	"	Collins No. 1.	slope	Collins Colliery Co.	Glen Jean.....
269	"	Collins No. 2.	slope	Collins Colliery Co.	Glen Jean.....
270	"	Whipple	shaft	Whipple Colliery Co.	Scarbro
271	"	Sun No. 1.	slope	Sun C. & C. Co.	Sun
272	"	Sun No. 2.	shaft	Sun C. & C. Co.	Sun
273	"	Derryhale	drift	McKell C. & C. Co.	Glen Jean.....
274	"	Kilsyth	drift	McKell C. & C. Co.	Glen Jean.....
275	"	Oswald	drift	McKell C. & C. Co.	Glen Jean.....
276	"	Dunloop No. 1.	drift	Dunn Loop C. & C. Co.	Dunloop
277	"	Dunloop No. 2.	drift	Dunn Loop C. & C. Co.	Dunloop
278	"	Turkey Knob.....	drift	The Turkey Knob C. Co.	Macdonald.....
279	"	Macdonald	drift	The Macdonald Colliery Co.	Macdonald.....
280	"	Sugar Creek	slope	Sugar Creek C. & C. Co.	Macdonald.....
281	"	Mt. Hope (being opened).....	drift	Mt. Hope Coal Co.	Mt. Hope. .

*NAME OF SUPERINTENDENT, NAME OF MINE BOSS, SEAMS
WORKED AND THICKNESS, TOTAL NUMBER
OF INSIDE EMPLOYEES.*

Name of Superintendent.	Name of Mine Boss.	Name of Coal Bed Worked.	Thickness. Ft. In.	Kind of Ven-tilation.	Total Inside Employees.	No.
R. J. Stegall.	J. W. Wedgewood...	No. 5.	7-0.	natural ...	28	220
W. A. Carver.	Ed. Forbes.	No. 2 Gas.	8-0.	furnace ...	45	221
R. C. Taylor.	D. S. Dooley.	No. 2 Gas.	7-9.	{ fan and	237	222
R. C. Taylor.	Jas. A. Martin.	No. 2 Gas.	7-9.	{ furnaces		223
F. P. Mills, Gen. Mgr.						224
H. B. Clarkson.	James Noble.	*Sewell.	3-0.	furnace ...	66	225
W. H. Dower.	W. H. Dower.	*Nuttall.	3-2.	fan.	51	226
W. H. Dower.		Nuttall.	3-2.	fan.	30	227
Jas. D. Boone.	Val Blachman.	Nuttall.	3-4.	furnace ...	50	228
M. W. Brellahan.	L. D. Rhode.	Nuttall.	3-6.	furnace ...	34	229
Hubert Raven.	J. W. McBrayer.	Sewell.	3-8.	{ furnace.	153	230
Hubert Raven.	J. W. McBrayer.	Sewell.	3-8.			231
E. Thomas.	H. P. Thomas.	Nuttall.	3-4.	furnace ...	28	232
Fred L. Raven.	John W. Tully.	Nuttall.	3-8.	{ fan.	119	233
Fred L. Raven.	John W. Tully.	Nuttall.	3-8.			234
J. A. Boone.	W. E. Cody.	Sewell.	4-0.	fan.	125	235
W. F. Boone.	Mike Guiheen.	Nutta 1.	3-8.	natural ...	48	236
Geo. Holland.	John Ohlinger.	Nuttall.	3-10.	furnace ...	22	237
Geo. Holland.	P. A. Ohlinger.	Nuttall.	3-10.	natural ...	7	238
D. W. Boone.	Thos. Stead.	Sewell.	3-6.	fan.	111	239
J. D. Campbell.	W. R. Hall.	Nuttall.	4-0.	natural ...	42	240
H. H. Rothwell.	Wm Christian.	Nuttall.	3-8.	furnace ...	25	241
H. H. Rothwell.		Nuttall.	3-6.	natural ...		242
F. H. Stembrecker.	A. G. Coburn.	Sewell.	4-2.	fan.	72	243
F. H. Stembrecker.	Joseph Carr.	Sewell.	4-2.	furnace ...	87	244
W. B. Miller.	G. M. Prince.	Fire Creek.	3-4.	fan.	125	245
H. D. Gast.	W. L. Herndon.	Sewell.	3-4.	natural ...	159	246
John Laing.	John Perfater.	Sewell.	4-0.	natural ...	16	247
G. H. Caperton.	Zeb Arrington.	Fire Creek.	3-6.	natural ...	65	248
H. B. Beury.	Geo. McDaniel.	Fire Creek.	4-0.	fan.	100	249
W. K. Custed.	Lee Long.	Fire Creek.	3-6.	fan.	30	250
John Laing.	James Laing.	Sewell.	4-0.	fan.	54	251
John Laing.	John Long.	Fire Creek.	6-0.	fan.	92	252
John Laing.	T. E. Sutton.	Fire Creek.	5-6.	fan.	103	253
G. H. Caperton.	B. F. Dorsey.	Fire Creek.	4-6.	furnace ...	48	254
G. H. Caperton.	Thos. Boyd.	Sewell.	4-4.	fan & nat.	83	255
Jas. H. Boyd.	Pat McQuade.	Fire Creek.	3-6.	furnace ...	58	256
J. H. Dempsey.	J. H. Dempsey.	Fire Creek.	4-0.	furnace ...	38	257
C. C. Beury.	R. B. Hanna.	Fire Creek.	4-6.	{ fan.	150	258
C. C. Beury.	R. B. Hanna.	Fire Creek.	4-6.			259
Geo. Lawton.	H. C. Peters.	Fire Creek.	4-0.	fan.	52	260
Jas. H. Boyd.	Richard Seymour.	Fire Creek.	3-0.	natural ...	18	261
Pat J. Riley.	Peter McQuade, Jr.	Fire Creek.	3-11.	{ fan.	144	262
Pat J. Riley.	Peter McQuade, Jr.	Fire Creek.	3-11.			263
F. E. Walker.	J. A. McCallister.	Sewell.	5-6.	fan.	250	264
F. E. Walker.	J. A. McCallister.	Sewell.	5-6.	fan.		265
H. A. Moseley.	W. S. Williamson.	Sewell.	5-6.	2 furnaces	175	266
Geo. W. Jones.	David Evandoll.	Sewell.	5-0.	fan.	129	267
Geo. Wolfe.	Adam Lindley.	Sewell.	4-6.	fan.	300	268
Geo. Wolfe.	Adam Lindley.	Sewell.	4-6.	fan.		269
Geo. P. Daniels.	Robt. Watson.	Sewell.	5-0.	fan.	55	270
Jas. Laing.	Jas. Martin.	Sewell.	6-0.	fan.	280	271
Jas. Laing.	Jas. Martin.	Sewell.	6-0.	fan.		272
Thos. Nichol.	T. A. Lewis.	Sewell.	5-6.	fan.	100	273
Thos. Nichol.	T. T. Lewis.	Sewell.	5-9.	furnace ...	140	274
Thos. Nichol.	Jos. Harland.	Sewell.	5-0.	natural ...	14	275
J. B. McGuffin.	A. P. Gibson.	Sewell.	5-6.	fan.	55	276
J. B. McGuffin.	A. P. Gibson.	Sewell.	5-6.	fan.	100	277
Quinn Morton.	Peter Wolfe.	Sewell.	6-0.	fan.	75	278
S. Dixon.	V. A. Miller.	Sewell.	5-3.	fan.	158	279
S. Dixon.	F. L. Ranny.	Sewell.	5-0.	fan.	165	280
						281

*Nuttall and Sewell are different names for the same seam.

*DIRECTORY OF THE MINES IN THE STATE OF WEST VIRGINIA FOR THE YEAR ENDING
JUNE 30th, 1903.*

No.	COUNTY.	Name of Mine.	Kind of opening.	Name of Company.	Postoffice Address.
282	Fayette	Scarbo	shaft	The White Oak Fuel Co	Scarbro.
283	"	Carlisle	shaft	The White Oak Fuel Co	Scarbro.
284	"	Big Q. & Lick Branch	2 dfts	Quinnimont Coal Co	Quinnimont
285	"	Robins	drift	Robins Coal Co.	Quinnimont
286	"	Laurel Creek	drift	Laurel Creek Coal Co.	Quinnimont
287	"	Greenwood	drift	Greenwood Coal Co.	Lawton
289	"	Rend No. 1	drift	W. P. Rend.	Rend.
290	"	Rend No. 2	drift	W. P. Rend.	Rend.
291	"	Rend No. 3	drift	W. P. Rend.	Rend.
292	"	Rend No. 4	drift	W. P. Rend.	Rend.
293	"	Rend No. 5	drift	W. P. Rend.	Rend.
294	"	Gamoca No. 2 Gas.	drift	Gamoca C. Co.	Gamoca.
298	Raleigh	Royal	drift	Royal C. & C. Co	Prince
299	"	Raleigh No. 1	drift	Raleigh C. & C. Co.	Raleigh
300	"	Raleigh No. 2	drift	Raleigh C. & C. Co.	Raleigh
302	"	Raleigh No. 4	drift	Raleigh C. & C. Co.	Raleigh
301	"	Raleigh No. 3	drift	Raleigh C. & C. Co.	Raleigh
303	"	Pack	drift	The Wright C. & C. Co.	Wright
304	"	Wright	drift	The Wright C. & C. Co.	Wright
305	"	Lanark No. 1	drift	Lanark Fuel Co.	Lanark
306	"	Lanark No. 2	drift	Lanark Fuel Co.	Lanark
307	"	Piney No. 1	drift	Piney Colliery	Stanaford.
308	"	Piney No. 2	drift	Piney Colliery	Stanaford.
309	"	Stonewall No. 1	drift	Stonewall C. & C. Co.	Stonewall.
310	"	Stonewall No. 2	drift	Stonewall C. & C. Co.	Stonewall.
311	Nicholas	Bell Creek	drift	Bell Creek Coal Co	Belva
313	"	ambria (being opened)	drift	The Cambria Mining Co.	Cambria
314	"	Mt. Carmel (being opened)	drift	Mt. Carmel C. & C. Co.	Belva
315	"	National (being opened)	drift	The National C. & C. Co.	Belva
316	"	Arminius	drift	The Arminius Coal Co	Cambria

FOURTH DISTRICT, S. S. COOPER, INSPECTOR.

317	McDowell.	Tidewater	drift	The Tidewater C. & C. Co.	Vivian
318	"	Bottom Creek	drift	Bottom Creek C. & C. Co.	Vivian
319	"	Peerless	drift	Peerless C. & C. Co.	Vivian
320	"	Empire	drift	The Empire C. & C. Co.	Landgraft
321	"	Shawnee	drift	Shawnee C. & C. Co.	Eckman.
322	"	Eureka	drift	Eureka C. & C. Co.	Eckman.
323	"	Pulaski	drift	Pulaski Iron Co	Eckman.
324	"	Keystone No. 1	drift	Keystone C. & C. Co.	Keystone
325	"	Keystone No. 2	drift	Keystone C. & C. Co.	Keystone
326	"	Algoma Big Four	drift	Algoma C. & C. Co.	Algoma
327	"	Algoma Coal Sta.	drift	Algoma C. & C. Co.	Algoma
328	"	Algoma Piney	drift	Algoma C. & C. Co.	Algoma
329	"	Gilliam	drift	Gilliam C. & C. Co.	Gilliam
330	"	Rolfe	drift	Rolfe C. & C. Co.	Switchback.
331	"	Roanoke	drift	Roanoke C. & C. Co.	Worth
332	"	Indian Ridge	drift	Indian Ridge C. & C. Co.	Worth
333	"	Arlington	drift	Arlington C. & C. Co.	McDowell.
334	"	Greenbrier	drift	Greenbrier C. & C. Co.	McDowell.
335	"	McDowell	drift	McDowell C. & C. Co.	McDowell.
336	"	Ashland No. 1	drift	Ashland C. & C. Co.	Ashland.
337	"	Ashland No. 2	drift	Ashland C. & C. Co.	Ashland.
338	"	Cherokee	drift	Cherokee Colliery Co.	Ashland.
339	"	Elk Ridge	drift	Elk Ridge C. & C. Co.	Kyle
340	"	Lynchburg	drift	Lynchburg C. & C. Co.	Kyle
341	"	Powhatan	drift	Powhatan C. & C. Co.	Powhatan
342	"	Upland No. 1	drift	Upland C. & C. Co.	Elkhorn
343	"	Upland No. 2	drift	Upland C. & C. Co.	Elkhorn
344	"	Houston No. 1	drift	Houston C. & C. Co.	Elkhorn
345	"	Houston No. 2	drift	Houston C. & C. Co.	Elkhorn
346	"	Crozer No. 1	drift	Crozer C. & C. Co.	Elkhorn
347	"	Crozer No. 2	drift	Crozer C. & C. Co.	Elkhorn

*NAME OF SUPERINTENDENT, NAME OF MINE BOSS, SEAMS
WORKED AND THICKNESS, AND TOTAL NUMBER
OF INSIDE EMPLOYEES.*

Name of Superintendent.	Name of Mine Boss.	Name of Coal Bed Worked.	Thickness. Ft. In.	Kind of Ventilation.	Total Inside Employees.	No.
F. F. Dixon, Jr.	B. F. Tidlow	Sewell	5-2	fan	108	282
F. F. Dixon, Jr.	T. E. Lewis	Sewell	5-0	fan	52	283
C. B. Helwig	C. W. Carman	Fire Creek	4-0	natural	74	284
Richard Howells	R. Howells	Fire Creek	3-0	natural	20	285
W. A. Brown	J. A. Brown	Fire Creek	3-10	fan	85	286
W. A. Brown	Wm. Creekmer	Fire Creek	4-0	fan	225	287
Geo. L. Moran	A. McDaniel	Fire Creek	5-0	fan	90	289
Geo. L. Moran	J. N. Schweitzer	Sewell	4-8	fan	58	290
Geo. L. Moran	P. L. Black	Sewell	4-6	fan	5	291
Geo. L. Moran	E. E. Blooser	Sewell	5-0	fan	38	292
Geo. L. Moran	J. T. Shearer	Sewell	5-0	fan	71	293
J. M. Campbell	Wayne Bumpus	No. 2 Gas	4-3	furnace	55	294
John H. Howald	Chas. Stover	Fire Creek	4-0	natural	80	298
Jas. Stirrat	I. W. Hurt	Fire Creek	4-10	fan	299	299
Jas. Stirrat	I. W. Hurt	Fire Creek	4-10	fan	116	300
Jas. Stirrat	I. W. Hurt	Fire Creek	4-10	fan	302	302
Jas. Stirrat	Reese Watkins	Fire Creek	5-0	fan	40	301
W. Gaston Caperton	J. A. Davis	Fire Creek	3-6	natural	15	303
W. Gaston Caperton	Wm. Hurt	Fire Creek	4-0	natural	120	304
J. B. Laing	Morris McGuire	Sewell	3-0	natural	32	305
J. B. Laing	Morris McGuire	Fire Creek	5-0	natural	306	306
M. W. Murphy	C. C. Fultz	Fire Creek	4-0	natural	29	307
M. W. Murphy	C. C. Fultz	Fire Creek	4-0	natural	308	308
J. W. Straughan	B. M. Guy	Sewell	3-0	furnace	41	309
J. W. Straughan	B. M. Guy	Fire Creek	5-6	furnace	66	310
P. E. Gallagher		Coalburg	4-0	furnace	311	311
S. Jones		Coalburg	4-8	furnace	7	313
G. L. Robinson	Chas. Green	Coalburg	4-8	natural	314	314
Chas. Jasper		Coalburg	4-8	natural	315	315
Samson Smith	S. W. Smith	Coalburg	4-6	natural	4	316
J. W. Miskell	Samuel Campbell	Poca. No. 3	6-0	2 fans	135	317
S. W. Patterson	Jas. H. Cooper	Poca. No. 3	6-0	fan	105	318
R. Y. Luther	W. H. Devenny	Poca. No. 3	6-0	fan	121	319
W. D. Ord	Thos. Barrett	Poca. No. 3	5-10	fan	205	320
P. P. Flanagan	J. P. Horney	Poca. No. 3	6-3	fan	100	321
L. E. Tierney	C. C. Hughes	Poca. No. 3	7-0	fan	135	322
C. E. F. Burnley	I. M. Shank	Poca. No. 3	6-8	fan	190	323
J. K. F. Steele	John Murray, Sr.	Poca. No. 3	6-6	fan	150	324
J. K. F. Steele	Geo. Smith	Poca. No. 3	6-6	fan	325	325
Wm. J. Beury	Thos. Lightfoot	Poca. No. 3	6-2	fan	326	326
Wm. J. Beury	Bud Asberry	Poca. No. 3	6-2	fan	160	327
Wm. J. Beury	A. J. Stewart	Poca. No. 3	6-2	furnace	328	328
P. P. Flanagan	Frank McCloskey	Poca. No. 3	6-0	fan	135	329
Jas. E. J. nes	Wint McCann	Poca. No. 3	5-9	fan	125	330
W. C. Easley	F. M. Cox	Poca. No. 3	6-0	fan	125	331
C. Botsford	Jesse Hackworth	Poca. No. 3	5-3	fan	85	332
P. P. Flanagan	A. J. Gallagher	Poca. No. 3	5-10	fan	80	333
Jairus Collins	C. W. Atkinson	Poca. No. 3	6-0	fan	105	334
T. H. Cooper	Jas. Deveny	Poca. No. 3	5-0	2 fans	116	335
T. J. O'Neil	T. W. Akers	Poca. No. 3	5-6	fan	160	336
T. J. O'Neil	T. W. Akers	Poca. No. 3	5-6	furnace	337	337
Jairus Collins	T. G. Saunders	Poca. No. 3	5-6	furnace	35	338
L. E. Tierney	R. P. Bowles	Poca. No. 3	6-6	fan	120	339
L. E. Tierney	W. T. Heatherman	Poca. No. 3	7-0	fan	155	340
L. E. Tierney	A. J. Dalton	Poca. No. 3	7-6	2 fans	130	341
J. J. Lincoln	J. A. Grantham	Poca. No. 3	7-8	fan	170	342
J. J. Lincoln	J. H. Burton	Poca. No. 3	7-8	fan	343	343
Benj. Lewis	Chris Kershaw	Poca. No. 3	8-0	fan	172	344
Benj. Lewis	Jas. Moore	Poca. No. 3	8-0	fan	345	345
Samuel Evans	J. R. Bailey	Poca. No. 3	8-0	fan	210	346
Samuel Evans	Geo. Guy	Poca. No. 3	8-0	fan	347	347

**DIRECTORY OF THE MINES IN THE STATE OF WEST VIRGINIA FOR THE YEAR ENDING
JUNE 30th, 1903.**

No.	COUNTY.	Name of Mine.	Kind of opening.	Name of Company.	Postoffice Address.
348	McDowell.	Turkey Gap	drift	Turkey Gap C. & C. Co.	Ennis
349	"	Norfolk	drift	Norfolk C. & C. Co.	Switchback
350	"	Angle	drift	Norfolk C. & C. Co.	Switchback
351	"	Lick Branch	drift	Norfolk C. & C. Co.	Switchback
352	"	Delta	drift	Norfolk C. & C. Co.	Switchback
353	"	Shamokin	drift	Shamokin C. & C. Co.	Switchback
354	"	Elkhorn	drift	Elkhorn C. & C. Co.	Mayberry
355	"	Big Four	slope	Big Four C. & C. Co.	Kimball
356	"	Big Sandy	drift	Big Sandy C. & C. Co.	Big Sandy
357	"	Cambridge	drift	Vaughan C. & C. Co.	Rodenfield
358	"	Davy-Crockett	drift	Davis-Crockett C. & C. Co.	Hallsville
359	"	Tug River	drift	Tug River C. & C. Co.	Marytown
360	"	Twin Branch	drift	Twin Branch Mining Co.	Hallsville
361	"	Short Creek	drift	Short Creek C. & C. Co.	Hallsville
362	"	West	drift	Pocahontas Collieries Co.	Pocahontas, Va.
363	"	Antler	drift	Antler C. & C. Co.	Antler
364	"	Cletus	drift	Cletus C. & C. Co.	Hallsville
365	"	Black Stone	drift	Black Stone Mining Co.	Hallsville
366	"	U. S. No. 1	drift	United States C. & C. Co.	Tug River
367	"	U. S. No. 2	drift	United States C. & C. Co.	Tug River
368	"	U. S. No. 3	drift	United States C. & C. Co.	Tug River
369	"	Maher	drift	Maher C. & C. Co.	Marytown
370	"	Flournoy No. 1	drift	Flournoy Colliery Co.	Hensley
371	"	Flournoy No. 2	drift	Flournoy Colliery Co.	Hensley
372	"	Hensley	drift	Hensley Coal Co.	Hensley
373	"	Mohawk	drift	Mohawk C. & C. Co.	Dotson
374	Mercer	Sterling	drift	Mill Creek C. & C. Co.	Coopers
375	"	West Mill Creek	drift	Mill Creek C. & C. Co.	Coopers
376	"	Coaldale	drift	Coaldale C. & C. Co.	Coaldale
377	"	Buckeye	drift	Buckeye C. & C. Co.	Freeman
378	"	Caswell Elkhorn	drift	Caswell Creek C. & C. Co.	Freeman
379	"	Caswell Hemlock	drift	Caswell Creek C. & C. Co.	Freeman
380	"	Booth-Bowen	drift	Booth-Bowen C. & C. Co.	Freeman
381	"	Louisville	drift	Louisville C. & C. Co.	Goodwill
382	"	Goodwill	drift	The Goodwill C. & C. Co.	Goodwill
383	"	North & South	2 drifts	Pinnacle C. & C. Co.	McComas
384	"	Crane Creek No. 1	drift	American C. & C. Co.	Mannering
385	"	Crane Creek No. 2	drift	American C. & C. Co.	Mannering
386	"	Sagamore	drift	Sagamore C. & C. Co.	Bramwell
387	"	Crystal	drift	Crystal C. & C. Co.	Godfrey
388	"	Thomas	drift	The Thomas Coal Co.	McComas
389	"	Yukon	drift	Yukon Coal Co.	Bramwell
390	Mingo.	Camp Branch	drift	Pearl Coal Mining Co.	Dingess
391	"	Frederick	drift	Pearl Coal Mining Co.	Dingess
392	"	Olympia (abandoned)	drift	Pearl Coal Mining Co.	Dingess
393	"	Pearl	drift	Pearl Coal Mining Co.	Dingess
394	"	Mingo	drift	Pearl Coal Mining Co.	Dingess
395	"	Logan	drift	Red Jacket C. & C. Co.	Red Jacket
396	"	Rutherford	drift	Red Jacket C. & C. Co.	Red Jacket
397	"	Maritime	drift	Red Jacket C. & C. Co.	Red Jacket
398	"	Red Jacket	drift	Red Jacket C. & C. Co.	Red Jacket
399	"	Lick Fork	drift	Red Jacket C. & C. Co.	Red Jacket
400	"	Grapevine	drift	Red Jacket C. & C. Co.	Red Jacket
401	"	Thacker No. 1	drift	Thacker C. & C. Co.	Thacker
402	"	Thacker No. 2	drift	Thacker C. & C. Co.	Thacker
403	"	Lynn	drift	Lynn C. & C. Co.	Sheppard
404	"	Glen Alum No. 1	drift	Glen Alum C. Co.	Glen Alum
405	"	Glen Alum No. 2	drift	Glen Alum C. Co.	Glen Alum
406	"	Nolan	drift	Nolan Coal Co.	Nolan
407	"	War Eagle (be'g'op'ed)	drift	War Eagle Coal Co.	War Eagle
408	"	Hatfield	drift	Hatfield Colliery Co.	Nolan
409	"	Jackson	drift	Jackson Coal Co.	Nolan
410	"	Mate Creek	drift	Mate Creek Co.	Matewan
411	"	Marvin	drift	Marvin Coal Co.	Matewan

NAME OF SUPERINTENDENT, NAME OF MINE BOSS, SEAMS WORKED AND THICKNESS, AND TOTAL NUMBER OF INSIDE EMPLOYEES.

Name of Superintendent.	Name of Mine Boss.	Name of Coal Bed Worked.	Thick- ness. Ft. In.	Kind of Ven- tilation.	Total Inside Employees.	No.
W. H. McQuail.....	James Hopkins.....	Poca. No. 3	8-0.....	fan.....	175	348
Jas. E. Jones.....	W. H. Walters.....	Poca. No. 3	7-6.....	fan.....	203	349
Jas. E. Jones.....	W. H. Walters.....	Poca. No. 3	7-6.....	fan.....	146	350
Jas. E. Jones.....	W. H. Walters.....	Poca. No. 3	7-6.....	fan.....	203	351
Jas. E. Jones.....	W. H. Walters.....	Poca. No. 3	7-6.....	fan.....	150	352
Jas. E. Jones.....	W. H. Walters.....	Poca. No. 3	7-6.....	fan.....	221	353
J. E. Barlow.....	L. B. Holiday.....	Poca. No. 3	7-3.....	fan.....	140	354
W. H. Coffman, Gen. M.	J. A. Miller.....					
	J. R. Booth.....	Poca. No. 3	6-0.....	2 fans.....	40	355
	T. R. Craig.....					
W. Wood.....	D. M. Woody.....	Poca. No. 4	3-10.....	fan.....	62	356
M. Hall.....	M. Hall.....	Tug River.	4-0.....	furnace.....	40	357
T. M. Hall.....	Mike Keys.....	Tug River.	3-9.....	furnace.....	15	358
H. L. Waldron.....	Thos. Woody.....	Tug River.	3-6.....	fan.....	45	359
J. E. Rhodemyre.....	Jas. McBrayer.....	Poca. No. 4	3-10.....	furnace.....	87	360
C. S. Angel.....	T. W. Daugherty.....	Tug River.	3-5.....	furnace.....	19	361
A. J. King.....	A. H. Lewis.....	Poca. No. 3	9-0.....	fan.....	10	362
F. J. Baxter.....	C. R. Webb.....	Tug River.	3-0.....	natural.....	35	363
W. B. Honaker.....	J. H. Bragg.....	Tug River.	3-8.....	natural.....	25	364
W. B. Honaker.....	S. S. Harris.....	Tug River.	4-0.....	furnace.....	25	365
J. M. B. Reis.....	Geo. L. Smith.....	Poca. No. 4	4-6.....	fan.....	300	366
J. M. B. Reis.....	W. A. Lilly.....	Poca. No. 4	4-6.....	fan.....	367	367
J. M. B. Reis.....	H. A. Frankenfield.....	Poca. No. 4	4-6.....	furnace.....	368	368
W. J. McClann.....	Jas. Heron.....	Tug River.	3-8.....	furnace.....	25	369
Cyrus O. Smith.....	W. R. Todd.....	Sewell ?.....	3-6.....	furnace.....	12	370
Cyrus O. Smith.....	J. R. White.....	Sewell ?.....	3-6.....	furnace.....	15	371
Cyrus O. Smith.....	W. R. Todd.....	Sewell ?.....	3-6.....	furnace.....	32	372
C. Botsford.....	S. F. Beckett.....	Tug River.	5-3.....	furnace.....	90	373
T. H. Cooper.....	J. L. Martin.....	Poca. No. 3	8-0.....	fan.....	95	374
T. H. Cooper.....	W. L. Pettitt.....	Poca. No. 3	8-0.....	fan.....	95	375
T. H. Cooper.....	Thos. Williams.....	Poca. No. 3	8-6.....	fan.....	125	376
J. C. Pack.....	Thos. Gent.....	Poca. No. 3	5-6.....	fan.....	115	377
W. G. Freeman.....	Tom Grazeal.....	Poca. No. 3	7-6.....	fan.....	173	378
W. G. Freeman.....	Tom Grazeal.....	Poca. No. 3	7-6.....	fan.....	379	379
Harry Bowen.....	J. H. Mitchell.....	Poca. No. 3	7-6.....	fan.....	156	380
Jairus Collins.....	H. T. Woods.....	Poca. No. 3	4-8.....	2 fans.....	110	381
Philip Goodwill.....	E. J. Early.....	Poca. No. 3	4-8.....	fan.....	75	382
Calvin Shockey.....	James Dewese.....	Poca. No. 3	4-8.....	fan.....	59	383
Calvin Shockey.....	J. P. Johnston.....	Poca. No. 3	4-8.....	fan.....	77	384
Calvin Shockey.....	J. P. Johnston.....	Poca. No. 3	4-8.....	fan.....	385	385
Stuart M. Buck.....	T. C. Dooley.....	Poca. No. 3	4-6.....	fan & 2 frns.....	70	386
L. N. Buford.....	H. J. Reed.....	Poca. No. 3	4-8.....	furnace.....	47	387
W. J. Pritchard.....	G. W. Harman.....	Poca. No. 3	4-6.....	fan.....	100	388
Howard Myers.....	G. W. Bell.....	Poca. No. 3	8-0.....	natural.....	15	389
J. R. Booth.....	A. Mitchell.....	Lo. Kittan	4-6.....	furnace.....	34	390
J. R. Booth.....	P. Kitchen.....	Freeport	5-6.....	furnace.....	25	391
H. G. Bowles, Gen. M.						392
J. R. Booth.....	John Kerns.....	Lo. Kittan	4-6.....	fan.....	28	393
J. B. Walker.....	Johnson Murphy.....	Thacker	4-10.....	furnace.....	33	394
Henry Brooke.....	R. D. Baldwin.....	Thacker	4-8.....	fan.....	100	395
Henry Brooke.....	R. D. Baldwin.....	Thacker	5-0.....	furnace.....	87	396
S. T. Lambert.....	W. E. Brown.....	Thacker	4-10.....	furnace.....	81	397
Henry Brooke.....	R. D. Baldwin.....	Thacker	4-8.....	fan & furn.....	120	398
S. T. Lambert.....	W. R. Wilbur.....	Thacker	6-10.....	furnace.....	105	399
S. T. Lambert.....	E. C. Lambert.....	Thacker	12-0.....	furnace.....	90	400
C. J. Adams.....	W. H. Adams.....	Thacker	7-0.....	furnace.....	401	401
C. J. Adams.....	J. H. Dent.....	Thacker	7-0.....	furnace.....	402	402
J. W. Warden.....	A. J. Younce.....	Thacker	5-6.....	furnace.....	36	403
C. W. Jones.....	H. H. Taylor.....	Thacker	6-3.....	fan.....	65	404
C. W. Jones.....	H. H. Taylor.....	Thacker	6-3.....	fan.....	405	405
W. H. Smith.....	C. A. Lover.....	Winifrede	3-6.....	air stack.....	23	406
G. W. Coffey.....	J. K. Coffey.....	Kittan.....	6-0.....	furnace.....	407	407
R. H. Cornman.....	J. First.....	Winifrede	4-0.....	furnace.....	26	408
J. F. Mitchell.....	L. H. Jackson.....	Thacker	3-6.....	furnace.....	15	409
Jas. Beavero.....	Wm. Farney.....	Lo. Kittan	4-2.....	furnace.....	4	410
J. A. Williams.....	W. L. Barnfield.....	Lo. Kittan	4-0.....	furnace.....	12	411

DIRECTORY OF THE MINES IN THE STATE OF WEST VIRGINIA FOR THE YEAR ENDING
JUNE 30th, 1903.

No.	COUNTY.	Name of Mine.	Kind of opening.	Name of Company.	Postoffice Address.
412	Mingo.....	Pappoose	lift	Pappoose Coal Co.:.....	War Eagle.....
415	"	Cedar	lift	Cedar Coal Co.	Stafford.....
417	"	Merrimac	lift	Merrimac Coal & Coke Co..	Sprigg
FIFTH DISTRICT, JERRY WESTLAKE, INSPECTOR.					
418	Barbour	Junior	drift	Junior Coal Co.	Elkins
419	"	Philippi No. 1.....	drift	Philippi C. M. Co.	Meriden
420	"	Philippi Nos. 2 & 3.	2 dfts	Philippi C. M. Co.	Meriden
421	"	Arden	drift	Tygart's River Coal Co.	Grafton
422	"	Berryburg No. 1.....	drift	Southern C. & Trans. Co.	Berryburg
423	"	Laurel Creek.....	drift	Laurel Creek C. Co.	Philippi
424	"	Century No. 1.....	shaft	The Century Coal Co.	Century
425	"	Valley	drift	Valley C. & C. Co.	Belington.....
426	"	Lillian	drift	Freeport S'keless C. & C. Co	Philippi
427	"	Pennsylvania	drift	The Pennsylvania C. & M. Co	Belington.....
428	"	Candace	drift	Candace C. & C. Co.	Clements.....
429	Grant.....	No. 22.....	shaft	Davis C. & C. Co.	Henry
430	"	No. 33.....	shaft	Davis C. & C. Co.	Henry
431	"	Marion	drift	Marion C. & C. Co.	Piedmont.....
432	Mineral.	No. 19.....	drift	Davis C. & C. Co.	Savage.....
433	"	No. 18.....	drift	Davis C. & C. Co.	Savage.....
434	"	No. 8	drift	Davis C. & C. Co.	Savage.....
435	"	No. 20.....	drift	Davis C. & C. Co.	Savage.....
438	"	No. 9	drift	Davis C. & C. Co.	Elk Garden....
439	"	No. 6	drift	Davis C. & C. Co.	Elk Garden....
440	"	Smith	drift	Smith Coal Co.	Blaine
441	"	Virginia	drift	Piedmont & Potomac C. Co	Piedmont.....
442	"	4-ft. (abandoned).....	drift	Big Vein Coal Co.	Shaw
443	"	Big Vein	drift	Big Vein Coal Co.	Shaw
444	"	Taylor	drift	Taylor Coal Co.	Emory
445	"	Hampshire 4 ft.....	drift	Masteller C. Co.	Keyser
446	Preston ..	Austen No. 1.....	drift	The Austen C. & C. Co.	Austen
447	"	Austen No. 2.....	drift	The Austen C. & C. Co.	Austen
448	"	Newburg	shaft	Hamilton C. & C. Co.	Newburg
449	"	Gorman Nos. 1 & 2.	2 dfts	Gorman C. & C. Co.	Austen
450	"	Irona No. 1.....	drift	Irona Coal Co.	Tunnelton.....
451	"	Irona No. 2.....	drift	Irona Coal Co.	Tunnelton
452	"	North Side or No. 1.	drift	Merchants Coal Co.	Tunnelton
453	"	S. Side or Nos. 2 & 3.	2 dfts	Merchants Coal Co.	Tunnelton
454	"	Corinth	drift	Oakland C. & C. Co.	Corinth
455	"	Howesville	drift	Kingwood C. Co.	Howesville
456	"	Dixie	drift	Hite C. & C. Co.	Hiorra
457	"	Vulcan	drift	Orr C. & C. Co.	Hiorra
458	"	Victoria No. 1.....	drift	The Manufacturers C. & C. Co	Tunnelton.....
459	"	Shrader	drift	Irontdale Valley C. Co.	Grafton.....
460	"	Atlantic No. 1.....	drift	Atlantic C. & C. Co.	Tunnelton
461	"	Atlantic No. 2.....	drift	Atlantic C. & C. Co.	Tunnelton
462	Randolph.	Coalton Nos. 1 & 2.	drift	Junior Coal Co.	Elkins
463	"	Grassy Run.....	drift	Junior Coal Co.	Elkins
464	"	Harding	drift	Junior Coal Co.	Elkins
465	"	Weaver No. 1.....	drift	Maryland Smokeless C. Co.	Weaver
466	"	Weaver No. 2.....	drift	Maryland Smokeless C. Co.	Weaver
467	"	Weaver No. 3.....	drift	Maryland Smokeless C. Co.	Weaver
468	"	Klondyke	drift	Ritter Coal Co.	Mabie
469	Taylor ..	Sandlick	drift	Grafton C. & C. Co.	Grafton.....
470	"	Flemington.....	drift	Flemington C. & C. Co.	Flemington.....
471	"	No. 41.....	drift	Davis C. & C. Co.	Simpson
472	"	Foster	drift	L. B Brydon	Simpson
473	"	Rosemont	drift	Rosemont Coal Co.	TyrcConnell
474	"	Davis	drift	T. B. Davis	Piedmont.....
475	Tucker ..	No. 23 (Thos. Drift).....	drift	Davis C. & C. Co.	Thomas.....
476	"	No. 34 (Thos. Shaft).....	shaft	Davis C. & C. Co.	Thomas.....
477	"	No. 25 (Thos. No. 3).....	drift	Davis C. & C. Co.	Thomas.....
478	"	No. 35 (Coketon No. 1)	drift	Davis C. & C. Co.	Thomas.....
479	"	No. 36 (Coketon No. 2)	drift	Davis C. & C. Co.	Thomas.....
480	"	No. 37 (Coketon No. 3)	drift	Davis C. & C. Co.	Thomas.....
481	"	No. 1 Douglas.....	drift	Cumberland Coal Co.	Albert
482	"	No. 3 Douglas	drift	Cumberland Coal Co.	Albert

*NAME OF SUPERINTENDENT, NAME OF MINE BOSS, SEAMS
WORKED AND THICKNESS, AND TOTAL NUMBER
OF INSIDE EMPLOYES.*

Name of Superintendent.	Name of Mine Boss.	Name of Coal Bed Worked.	Thickness. Ft. In.	Kind of Ventilation.	Total Inside Employees.	No.
G. W. Coffey.....	W. J. Williams.....	Up. Kittan	6-2....	furnace...	38	412
A. A. Mitchell.....	R. C. Mitchell.....	Big Eagle.	3-0....	sm'k stack	19	415
W. J. McClaren.....	M. L. Miller.....	Thacker ..	3-10....	furnace...	17	417
A. C. Finley.....	H. C. Haskins.....	Freeport..	5-0....	fan.....	53	418
L. J. Sandridge.....	Walter Mathews.....	Up. Fr p't	6-0....	{ fan.....	70	419
L. J. Sandridge.....	Walter Mathews.....	Up. Fr p't	6-0....	{ fan.....	41	420
John Rowland.....	John Rowland.....	Up. Fr p't	6-0....	fan.....	218	421
L. W. Smith.....	John McDonnell.....	Pittsburg.	9-6....	fan.....	21	422
W. S. Brydon.....	J. H. Ritter.....	Up. Fr p't	6-0....	fire basket	129	423
J. C. Ward.....	Ed. Williams.....	Red Stone	5-8....	fan.....	36	424
F. A. Coleman.....	C. Cronk.....	Up. Fr p't	6-8....	fan.....	22	425
John Murdock.....	Wm. A. Cox.....	{ Mah'n'g	4-0....	shaft.....	12	426
H. M. Wetzel.....	Edward Pierson.....	Freeport..	7-3....	natural...	17	427
W. P. Hurst.....	Wm. Koose.....	Freeport..	8-0....	furnace...	17	428
Wm. R. Baird.....	Thos. Conerty.....	Up. Fr p't	5-6....	fan.....	26	429
Wm. R. Baird.....	Thos. Conerty.....	Lo. Kittan	6-6....	fan.....	28	430
W. J. Barnard.....	W. J. Barnard.....	Up. Fr p't	5-0....	furnace...	14	431
O. Tibbets.....	Joe Tibbets.....	Lo. Kittan	5-6....	fan.....	52	432
O. Tibbets.....	Joe Tibbets.....	Lo. Kittan	5-8....	fan.....	32	433
O. Tibbets.....	J. B. Rankin, Sr.....	Georges Cr	13-0....	natural...	33	434
Lee Ott.....	Benj. Coleman.....	Up. Fr p't	5-0....	fire basket	45	435
Lee Ott.....	J. E. Ott.....	Pittsburg.	13-0....	natural...	252	438
Lee Ott.....	F. Wilson.....	Pittsburg.	13-0....	natural...	29	439
R. A. Smith.....	W. D. Walker.....	Freeport..	6-0....	fan.....	32	440
W. E. Herndon.....	W. B. Snider.....	Up. Fr p't	4-6....	furnace...	40	441
C. F. Jordan.....	Geo. Borrick.....	Pittsburg.	12-0....	natural...	23	442
M. B. McHenry.....	M. B. McHenry.....	Lo. Freept	4-8....	natural...	28	443
M. Masteller.....	Henry Byer.....	Up. Kittan	2-8....	fan.....	92	444
F. W. Horschler.....	Geo. R. Cook.....	Freeport..	4-6....	{ fan.....	63	445
F. W. Horschler.....	Geo. R. Cook.....	Freeport..	4-6....	{ fan.....	61	446
R. D. Wilson.....	John Humphrey.....	Freeport..	4-2....	fan.....	106	447
E. M. Kenly.....	D. M. Hart.....	Up. Fr p't	4-6....	fan.....	81	448
E. B. Truax.....	Matthew Riggins.....	Freeport..	4-6....	fan.....	216	449
E. B. Truax.....	Matthew Riggins.....	Freeport..	4-6....	furnace...	44	450
Wm. Warner.....	W. B. Edwards.....	Freeport..	4-6....	furnace...	60	451
Wm. Warner.....	W. B. Edwards.....	Up. Fr p't	5-0....	fan.....	35	452
S. H. Jordan.....	John M. Henry.....	Up. Fr p't	3-10....	furnace...	35	453
V. E. Gocke.....	L. W. Donahue.....	Freeport..	4-6....	furnace...	44	454
Alf. Fortney.....	L. W. Donahue.....	Freeport..	4-6....	furnace...	35	455
E. V. Smith.....	E. V. Smith.....	Up. Fr p't	4-4....	fan.....	44	456
H. J. Larew.....	H. J. Larew.....	Lo. Kittan	4-4....	fan.....	32	457
W. F. Harvey.....	W. F. Harvey.....	Kittan.....	5-0....	fan.....	67	458
E. B. Truax.....	J. W. Fortney.....	Freeport..	4-2....	{ fan.....	109	459
E. B. Truax.....	J. W. Fortney.....	Freeport..	4-2....	{ fan.....	14	460
A. C. Finley.....	David Stoddard.....	Up. Fr p't	9-0....	furnace...	108	461
A. C. Finley.....	R. D. Edwards.....	Up. Fr p't	7-0....	furnace...	89	462
A. C. Finley.....	J. M. Davis.....	Freeport..	7-0....	fan.....	65	463
James Dumph.....	Jas. Stewart.....	Up. Fr p't	10-0....	fan.....	9	464
James Dumph.....	J. L. Thomas.....	Up. Fr p't	10-0....	furnace...	24	465
James Dumph.....	J. L. Thomas.....	Up. Fr p't	6-0....	natural...	71	466
Andrew Hogg.....	Andrew Hogg.....	Freeport..	9-0....	furnace...	70	467
John L. Hechmer.....	John Adams.....	Pittsburg.	8-0....	natural...	74	468
J. W. Davidson.....	G. R. N. Johnson.....	Pittsburg.	9-0....	fan.....	74	469
L. B. Brydon.....	Wm. M. Drainer.....	Pittsburg.	7-6....	furnace...	24	470
John Quinn.....	John Quinn.....	Pittsburg.	8-0....	natural...	48	471
John W. Fahey.....	Frank Savage.....	Pittsburg.	8-2....	natural...	70	472
L. S. McDowell.....	Thos. Fleming.....	Pittsburg.	7-6....	air shaft..	352	473
L. S. McDowell.....	Alex. Close.....	Freeport..	7-6....	fan.....	153	474
L. S. McDowell.....	J. S. Atkinson.....	Kittan.....	6-0....	fan.....	105	475
L. S. McDowell.....	H. G. Smith.....	Freeport..	6-6....	fan.....	48	476
L. S. McDowell.....	Thos. J. Kilroy.....	Kittan.....	6-0....	natural...	117	477
L. S. McDowell.....	W. J. Christopher.....	Kittan.....	3-6....	fan.....	174	478
L. S. McDowell.....	W. F. Reeves.....	Kittan.....	6-6....	fan.....	195	479
J. B. Jenkins.....	G. Jenkins.....	Kittan.....	6-0....	{ fan.....	481	480
J. B. Jenkins.....	J. Christopher.....	Kittan.....	6-0....	{ fan.....	482	481

*THE FOLLOWING IS A LIST OF MINES THAT WERE BEING
OPENED BUT HAD SHIPPED NO COAL TO
JUNE 30, 1903.*

COUNTY.	Name of Mine.	Kind of opening.	Name of Company.	Postoffice Address.
Harrison..	Herol Nos. 1 & 2.....	2 dfts	Herol Coal Co.....	Clarksburg.....
Kanawha..	Ulimax.....	drift	Cardiff Coal Co.....	Fairfield.....
"	Horton Nos. 1 & 2	2 dfts	Cardiff Coal Co.....	Fairfield.....
"	Quarrier.....	drift	Holly Coal Co.....	Leewood.....
"	Republic.....	drift	Republic Coal Co.....	Devota.....
Fayette..	Price Hill.....	slope	Price Hill Colliery Co.....	Macdonald.....
"	Oakwood.....	shaft	The White Oak Fuel Co.....	Scarbro.....
"	Stuart Nos. 1 & 2.....	2 s'fts	Stuart Colliery Co.....	Parrall.....
"	Sycamore.....	drift	Sycamore Coal Co.....	Lawton.....
"	Glendale.....	drift	Glendale Colliery Co.....	Lawton.....
"	Deitz.....	drift	Deitz Colliery Co.....	Gauley Bridge..
"	Fayette.....	drift	Fayette Colliery Co.....	Gauley Bridge..
Raleigh..	Piney No. 3.....	drift	Piney Colliery.....	Stanaford.....
"	Stonewall No. 3.....	drift	Stonewall Coal Co.....	Stonewall.....
"	Beckley.....	drift	Beckley Coal Co.....	Beckley.....
Nicholas..	Rock Camp.....	drift	Rock Camp Coal Co.....	Vaughan.....
"	Scott.....	drift	Scott Colliery Co.....	Belva.....
McDowell..	U. S. Nos. 4, 5 & 6	3 dfts	United States C. & C. Co.....	Tug River.....
"	Welch.....	drift	Welch C. & C. Co.....	Welch.....
"	Imo.....	drift	Imo Coal Co.....	Welch.....
"	Zenith.....	drift	Zenith Coal & Coke Co.....	Ashland.....
"	McClaren.....	drift	McClaren Coal Co.....	Welch.....
"	Page.....	drift	Page C. & C. Co.....	Elkhorn.....
"	U. G.....	shaft	Middle States C. & C. Co.....	Welch.....
"	Helena.....	drift	Helena Coal Co.....	Hallsville.....
Mingo.....	Margaret.....	drift	Margaret Coal Co.....	War Eagle.....
"	Star.....	drift	Star C. & C. Co.....	War Eagle.....
Logan.....	Fisher.....	drift	Fisher Coal Co.....	Logan.....
"	U. S.....	drift	United States Coal, L'ber & Oil Co	Logan.....
Barbour..	Century No. 2.....	drift	Century Coal Co.....	Century.....
Preston..	Gorman No. 3.....	shaft	Gorman C. & C. Co.....	Austen.....
"	Irondale No. 2.....	drift	Manufacturers C. & C. Co.....	Unnelton.....
Rardolph..	Monroe Nos. 1 & 2.....	2 dfts	Juvier Coal Co.....	Elkins.....
Tucker....	No. 4 Douglas.....	drift	Cumberland Coal Co.....	Albert.....

ACCIDENTS.

ACCIDENTS.

A total of 159 persons were killed in and about the mines and 223 non-fatally injured. By falls of roof and coal 96 lives were lost; by mine cars 12; by explosions of gas 24; by dust and powder explosions 8, and by all other causes 7.

The most disastrous accidents during the year occurred in the month of September, one at the Algoma Mine in McDowell County, in which 17 lives were taken, and another in the Stafford Shaft in Marion county, in which 6 lives were sacrificed. Each of these accidents was caused primarily by violations of the State law.

During the past eleven years 692 persons have been killed by falls of roof within the mines of this State, and by all other causes 293 persons.

Lack of proper care on the part of the employes is mostly responsible for the large number killed by falls at the working faces.

EXPLOSIONS WITHIN THE MINES.

Mine Explosion at the Mine of the Algoma Coal & Coke Company on September 15, 1902, in which 17 Lives were Lost.

This is a drift mine developed in the Pocahontas coal and is called the number seven mine of the above named company.

Previous to and up to September, 1902, no gas of an explosive nature had been found in this mine.

The first and second cross entries are turned at right angles from the main heading at 4800 feet from the drift opening, and it was in these cross headings where the explosion occurred.

The accompanying map presents a plan of the section of the mine in which the explosion occurred.

At room No. 6 had been stationed an electric fan and an air conduit had been extended up the entry for the purpose of removing the gas which was known to generate on these two entries.

This electric fan had remained idle over Sunday and until Monday morning. The men entered this section of the mine and were at their places of work when the electric fan was started.

The gas was driven out onto the first cross entry and caused to explode by coming into contact with the open or naked lamps used by the workmen.

The force of the explosion was such as to destroy the doors and brattices over a large portion of the mine, and destroy the ventilating current.

The employes, besides those receiving burns, were rendered helpless through the effects of the after damp.

This explosion occurred about 7:30 on the morning of Monday, September 15th, 1902, and the last of the bodies was recovered on the following morning about 4 o'clock.

The location of the bodies as found are represented on the map by a small disc.

The following persons were killed by this explosion: Clem Jones, Henry Warren, Henry Woody, Ennis Stoball, Alex. Crider, Sam Waller, John Roike, Phil Jones, Henry Clark, Edward Gravely, Edward Callo-way, Payton Crider, James Lester, Charles Mullens, Faunt Saunders, James H. Turner and Jesse Wade.

OFFICE OF THE FOURTH DISTRICT MINE INSPECTOR,

KEYSTONE, McDowell Co., W. Va., Sept. 30, 1902.

MR. JAMES W. PAUL,

Chief Mine Inspector,

Charleston, W. Va.

DEAR SIR:

In pursuance with the regulations I hereby respectfully submit to you my report of an explosion which occurred on Sept. 15, 1902, at 7:30

A. M. at the Algoma Mine located at Algoma in the fourth mining district, McDowell County, West Virginia, resulting in the death of Clem Jones, Phil Jones, Henry Clark, Henry Woody, James Turner, Faunt Saunders, Chas. Mullins, Henry Warren, John Roiike, James Lester, Ennis Stohall, Edward Calloway, Edward Gravely, Sam Waller, Alex Crider, Payton Crider, and Jesse Wade, in the Big Four Drift belonging to the Algoma Coal and Coke Co.

In order to enable myself to explain to you more readily and to have you understand the existing conditions at the time and place I forward, under separate cover, a blue print of the workings and on which I have endeavored to mark course of air current, location of bodies when found.

I was informed of this disaster on the morning of the 15th and reached the scene about 8:30 A. M. They had just brought Mr. Frankenfield, Mine Foreman, out who had been overcome by damp of explosion of gas.

I immediately took charge and organized a rescue party. It had been reported that there were fifteen men on first cross entry where the explosion had occurred and thought perhaps we might be able to rescue some of them alive, but found upon examination the air course rendered useless, that brattices were blown out and damaged for at least a half mile.

In order to reach first cross entry we had to repair the brattices from main inlet to first cross. We also encountered a great deal of water that had accumulated in air course owing to the electric pump not being running and the wires being blown down. On approaching the immediate scene of explosion we encountered a great deal of damp. We got to the bodies on first cross at 7.15 in the evening. There were 17 men that had been killed and smothered by the explosion. It was the morning of Sept. 16th when the last body was taken out. These men beyond doubt suffered greatly from fright and concussion and some had struggled for life until overcome in a helpless condition and died before help arrived.

Having endeavored by observing the condition, with what knowledge my past experience has taught me; the evidence produced at Coroner's inquest, together with what other information obtained that could be considered reliable, I respectfully beg leave to state that to the best of my knowledge that it was the explosion of fire damp caused by accumulation of gas and use of naked lights.

I am of the firm opinion that the system as already worked as shown on map can be improved upon. This working as I see it is but a slight improvement on the single entry system having as a result safer ventilation, purer and with much less expense.

I also submit to you the evidence of P. K. Perdue, John Blinky and Mine Foreman Frankenfield, also questions and answers of Mine Foreman Frankenfield.

Trusting I have not tired you and hoping that you may be able to understand what I have tried to explain.

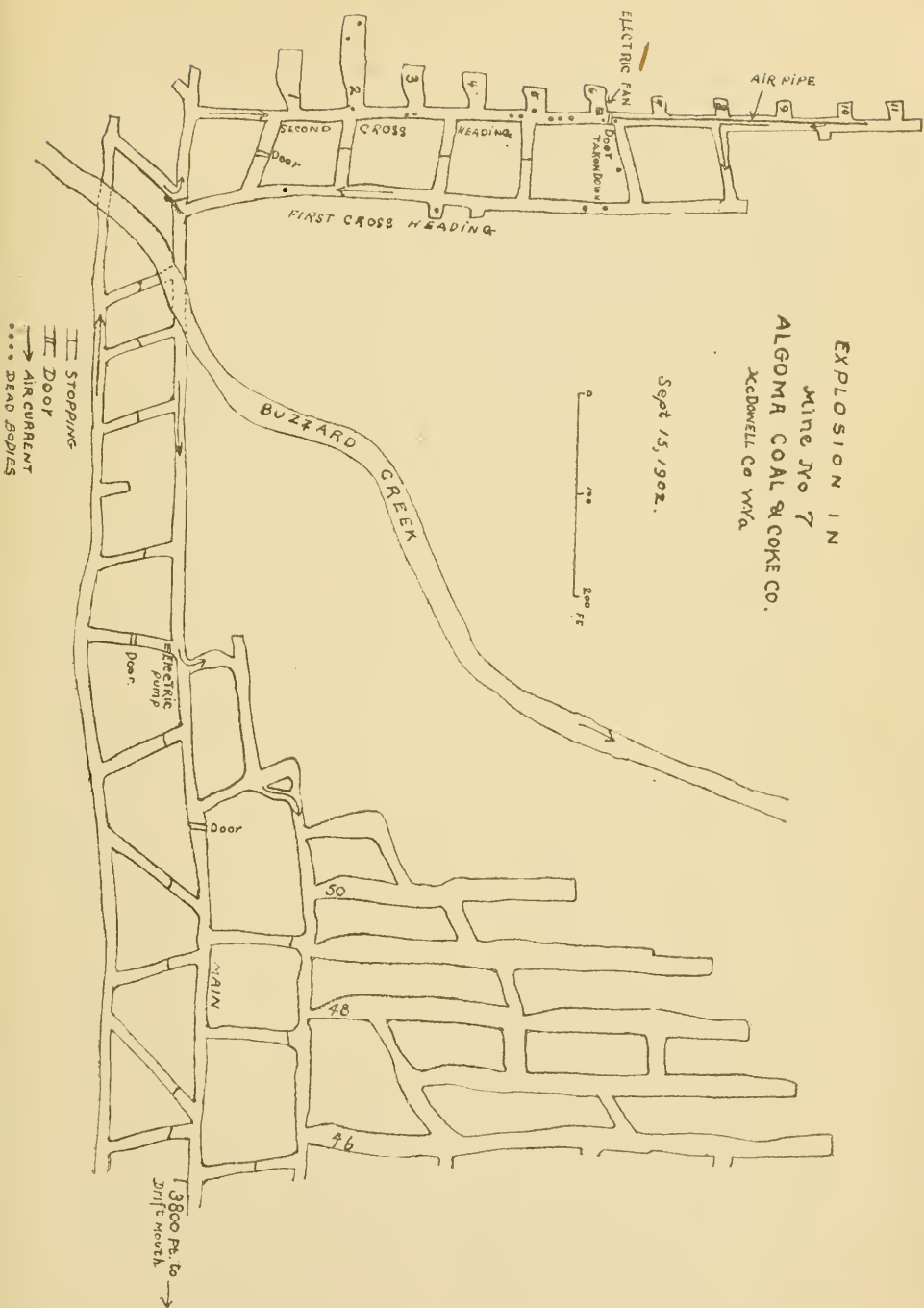
I remain,

S. S. COOPER,

Mine Inspector Fourth District.

MINE No 7
DNR COAL & COKE CO.
McDOWELL CO W Va

Sept 15, 1902.



The Following Testimonials were Sworn to and Subscribed Before F. G. Roberts, J. P., on the 16th Day of September, 1902:

Evidence of Wm. Pannell regarding the death of Clem Jones, Phil Jones, Henry Clark, Henry Warren, J. H. Turner, Faunt Saunders, Chas. Mullins, Henry Woody, John Roike, Jas. Lester, Ennis Stoball, Ed. Gravely, Sam Waller, Alex. Crider, Payton Crider, Ed. Calloway and Jesse Wade in the mines of the Algoma C. & C. Co., Sept. 15th, 1902. at Algoma, W. Va.

I saw Clem Jones, Henry Warren, J. H. Turner, Henry Clark, Chas. Mullins, Faunt Sanders, Ennis Stoball, Phil Jones and Henry Woody going toward their places about 7:30 o'clock yesterday morning. Jim Lester had gone in about twenty or twenty-five minutes ahead of them.

All of them had naked lamps. All the other boys mentioned must have been at least twenty minutes later arriving at the cross of straight entry than Lester. I don't know whether Lester went straight on to the fan or not. Jones, Warren and the others left me on No. 3 entry about thirty minutes before the explosion occurred and had just about time to get up to the cross heading. I was about one half (1-2) mile from where the explosion occurred and so do not know who entered the gaseous region first. I cannot state positively what the cause of death was.

(Signed) WM. PANNELL.

Witness, S. T. McLAUGHLIN.

Evidence of John Blinky, a miner, regarding the death of Clem Jones, Phil Jones, Henry Warren, Henry Woody, J. H. Turner, Faunt Saunders, Chas. Mullins, Henry Clark, John Roike, Jas. Lester, Ennis Stoball, Ed. Gravely, Sam Waller, Alex. Crider, Payton Crider, Ed. Calloway, and Jesse Wade in the mines of the Algoma C. & C. Co. at Algoma W. Va., Sept. 15th, 1902.

I worked the place Saturday night that these men were killed in Monday. There were no signs of gas then, the air was perfectly good at that time as the fan was running (I mean the electric fan) that had been put in after the discovery of gas a few days before.

I think that if these men had waited until the fan had been running a short time the air would have been all right.

(Signed) JOHN BLINKY.

Witness, D. H. THOMAS.

The above affiant further deposes and says:

I have talked with Mr. Frankenfield, the Mine Boss, about the air in those places and understood that it was necessary to be very careful. I have also heard Mr. Frankenfield talk with Ed. Gravely and Henry Warren on the same subject and they said they understood it. Gravely left the safety lamp in his place Saturday evening and when I went in that night to go to work I could not find it. After the fan ran about ten minutes everything was all right and I did not need the lamp. I told Jones and Warren where the lamp was and Warren said he thought he could get it, that was on Monday morning.

(Signed) JOHN BLINKY.

Witness, D. H. THOMAS.

Evidence of P. K. Perdue, tracklayer, regarding the death of Clem Jones, Phil Jones, Henry Clark, Henry Woody, J. H. Turner, Faunt Saunders, Chas. Mullins, Henry Warren, John Roike, Jas. Lester, Ennis Stoball, Ed. Gravely, Sam Waller, Alex. Crider, Payton Crider, Ed. Calloway and Jesse Wade in the mines of the Algoma C. & C. Co., at Algoma, W. Va., Sept. 15th, 1902.

I saw all these men going toward the place where the explosion occurred about 7:30 A. M. except Jim Lester who went in about a half hour before the others. All of them carried naked lamps. Nobody seemed to expect any danger.

(Signed) P. K. PERDUE.

Statement of Dan Sloniker Regarding the Above Matter.

Mr. P. K. Perdue and myself were together on the morning of the explosion and the above statement by him is true and correct.

(Signed) DAN SLONIKER.

Evidence of H. A. Frankenfield, Mine Foreman, regarding the death of Clem Jones, Phil Jones, Henry Clark, Henry Woody, Jas. H. Turner, Faunt Saunders, Chas. Mullins, Henry Warren, John Roike, Jas. Lester, Ennis Stoball, Ed. Gravely, Ed. Calloway, Sam Waller, Alex. Crider, Payton Crider, and Jesse Wade in the mines of the Algoma Coal & Coke Co., at Algoma, W. Va., Sept. 15th, 1902.

Ed. Gravely, Clem Jones and John Blinky had a contract to mine first cross heading and an airway. Some days ago signs of gas appeared in these places.

I examined the place carefully and warned the men of the dangers surrounding them, at the same time instructing them as to the method of discovering the presence of gases. We installed an electric fan one week ago yesterday and had a man to run it day and night. We also gave these contractors a safety lamp and instructed them to examine the air before taking their men in.

Saturday night the fan (electric) stopped until Monday morning as is customary, there being no work Sunday or Sunday night. On Saturday night I talked with Clem Jones and Henry Warren, a driver, about the dangers of the place in which they worked. Sunday I saw John Blinky and talked with him about it. I also talked with Gravely. They all said they understood the necessity of caution.

They went past the fan on the morning of the accident and evidently went into the gas with naked lamps.

(Signed) H. A. FRANKENFIELD.

Evidence of H. A. Frankenfield, Mine Boss.

1. Occupation? Mine Foreman for Algoma C. & C. Co.
2. How long employed by Algoma C. & C. Co.? Since July 21st, 1902.
3. When was gas first found in Algoma Mines? On September 1st, 1902.
4. At what point was it found? In the face of first cross entry.
5. Have you worked in gaseous mines elsewhere and where? Yes, in the Anthracite Coal field of Pennsylvania.

6. Was the first cross entry examined each morning before the men were allowed to go to work? It was examined every morning by me prior to that of the explosion.

7. By whom was the mine examined for gas and how? By me, with a safety lamp.

8. What instructions were given to the men who worked in the mine relative to presence of gas? They were instructed by me in the use of safety lamp and one was given them for their own use with instructions never to go into that section of the mine with a naked lamp before trying for gas with a safety lamp.

9. Previous to the explosion do you know of these instructions having been violated and by whom? They were violated by Ed. Gravely and Henry Warren on September 13th, 1902, for this Henry Warren was discharged on that day, but upon promise never to violate rules again was reinstated as driver on that entry.

10. Was the mine examined for gas on the morning of the explosion previous to the men going into the mine, and what was the report of the person who made examination? It was not examined by me on that morning, but was supposed to be by the contractors or leaders, the safety lamp being given them for that purpose.

11. Who made this examination? Cannot say.

12. At what hour did explosion occur? Between seven a. m. and eight a. m.

13. Where were you when explosion occurred? Helping to put loaded car on track at No. 4 side track on my way to first cross.

14. At what hour did the men generally go into the mines to work? On first trip into mines, usually about seven thirty or later.

15. What time did they go into the mine on the morning of explosion? At seven a. m.

16. Did the men ride or walk into mines at all times? Rode always until that morning, when they walked, not waiting for trip as usual.

17. How did they enter on morning of explosion, ride or walk? Walked to No. 4 side track, rode from there in car driven by Henry Warren.

18. Give name of fire boss, if any, previous to explosion? Arthur Gallimore was fire boss, but was taken sick and while waiting to obtain another or have him return the contractors were instructed so as to examine for gas themselves before taking their men to work.

19. Prior to Monday, September 15th, was there a bulletin board at the entrance to this mine? No. Is there now? Yes.

20. At time of explosion was the main ventilating fan running? Yes. What is the size and capacity? It is a 16-foot fan with a capacity of 36,000 cubic feet.

21. When was the electric fan first put into operation on the first cross entry? September 8th, 1902.

22. Was it running when explosion occurred? Yes.

23. Who generally started this fan? Either I or Henry Warren.

24. Who started it on the morning of explosion? Jim Lester, who was sent in to look after the fan.

25. Give its location in the mine? In the neck of No. 6 room.
26. How many kegs of powder were in the mine at time of explosion? Two and a piece.
27. How many exploded? Two.
28. What knowledge have you of the miners having lighted the gas on purpose to burn it? On September 1st Clem Jones lighted gas for the purpose of burning it, though they were heard to say by H. A. Lipscomb on September 14th, after having been warned of the danger in so doing by me, that all they had to do was to light it and drop down.
- (Signed) H. A. FRANKENFIELD.

State of West Virginia,

McDowell County, to-wit:

An inquest taken at Algoma in the County of McDowell on the 23rd day of September, 1902, before F. G. Roberts, a justice of the peace of the said County, upon the view of the bodies of Clem Jones, Phil Jones, Henry Warren, Henry Clark, Henry Woody, Ed. Gravely, Ennis Stoball, Ed. Calloway, Alex. Crider, Payton Crider Sam Waller, James Lester, John Roike, Chas. Mullins, Faunt Saunders, J. H. Turner and Jesse Wade there lying dead.

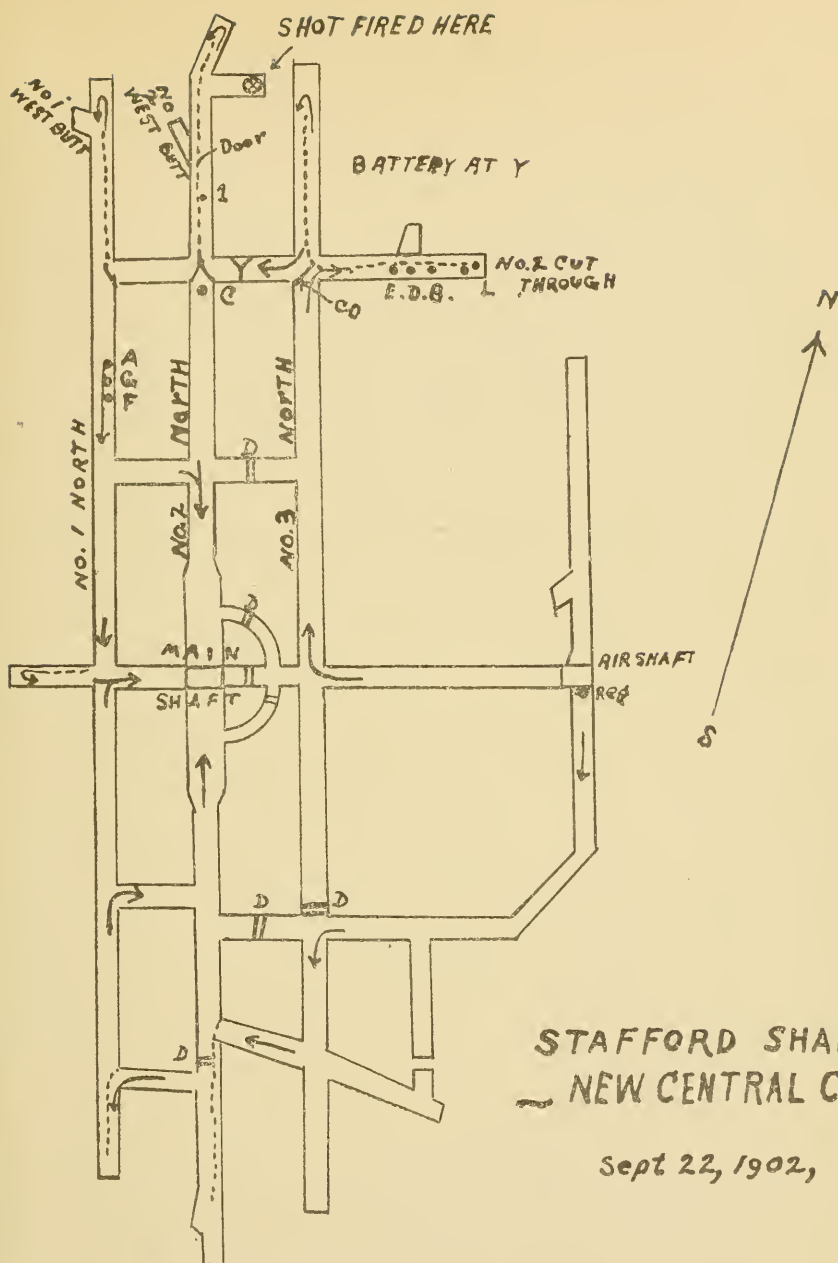
The jurors sworn to inquire when, how and by what means the said persons came to their death, upon their oath do say:

That the above named persons came to their death as the result of an explosion of gas in the mines of the Algoma C. & C. Co. on the 15th day of September, 1902, caused by one, Ed. Gravely, disobeying the orders and rules of the mine foreman by entering a part of the mine where gas was known to be with a naked lamp instead of using the safety lamp provided him.

A. MORRISEY, *Foreman*,
S. A. CLARK,
WM. ROBERTSON,
O. BOHNE,
W. E. MORRIS,
C. S. ANGEL,
F. G. ROBERTS, *J. P.*

Instructions Offered by the Chief Mine Inspector for the Future Plan of Ventilating the Mine, to S. S. Cooper, District Inspector.

"I have the tracing of the map of the mine before me and it indicates that the air from the first cross entry upon its return to the fan passes through the other part of the mine, which appears to be the principal working places. I would recommend that you offer a suggestion to the Algoma C. & C. Co. that they put in an over-cast leading from the main intake air-way to the first cross heading just beyond the point where Buzzard Creek crosses the main intake air-way; that the doors on the main heading be taken off; that an over-cast be put over the main heading on the cross cuts between rooms 18 and 19. A regulator should then be put in on the return air-way in the vicinity of No. 50 room. An arrangement of this kind will give two splits for the venilation of this mine and the air from the first cross entry will not be obliged to pass through the other portion of the mine."



STAFFORD SHAFT — — NEW CENTRAL COAL CO.

Sept 22, 1902,

- Air current
- K Door
- - - - - Brattice
- C.D. = Canvas 'door
- = Location of bodies



MARION COUNTY, W. VA.

Explosion in the Stafford Shaft Mine Belonging to the New Central Coal Company in Marion County, W. Va., on September 22, 1902.

An explosion of gas occurred in this mine on the morning of September 22nd, 1902, near the face of No. 2 north heading resulting in the death of six persons.

The bodies of those found after the explosion are indicated on the map by letters. At A was found Liborio Tarquinia; B, August Ammiel; C, Karl Koch; D, John Keating; E, R. H. Hoover; F, Andrew Ammiel; G, J. J. Wilson; I, Moses Williams; L, J. J. Sanford and Arthur Wilburt. Picked up near the main shaft was George Strompiskie. George F. Jenkins found his way to the surface up the air shaft.

J. J. Wilson and Moses Williams worked at the face marked L; Andrew Ammiel worked at face of No. 1 West Butt entry.

The X within a circle on the map indicates the place where the shot was discharged and Y indicates the location of the electric battery which was used to discharge the shot.

From the evidence submitted at the inquest it appears that the door nearest the No. 2 West Butt heading had been left open allowing the air current to pass through the door and depriving the heading beyond the door of a moving current which permitted the gas to accumulate.

State of West Virginia,

County of Marion, to-wit:

An inquisition at Stafford Mine of The New Central Coal Company, in said County, on the 22nd and 24th days of September, 1902, before A. T. Manning, Coroner of, said County, upon view of the bodies of Moses Williams, Karl Koch, August Ammiel and Liborio Tarquinia, there lying dead, and John Keating, who died on September 23rd, 1902, (and Robert H. Hoover, who died on September 25th, 1902). The jurors sworn to inquire when, how and by what means the said Moses Williams, Karl Koch, August Ammiel, Liborio Tarquinia came to their deaths on the 22nd day of September, 1902, at about 9 o'clock a. m., and John Keating on September 23rd, 1902, (and Robert H. Hoover on September 25th, 1902), as the result of an accident which occurred in the mine of The New Central Coal Company, in Pawpaw District, Marion County, West Virginia, caused by an explosion produced by a miner firing a shot, which explosion was occasioned by the neglect of some miner or person working in said mine leaving open the door leading from heading No. 2 into No. 2 West Butt, and thereby diverting the air from its proper course along No. 2 heading at said door for a short space of time, and lessening the air at the point where said shot was fired. We further find that said Company was not in anywise negligent; but that its mine was in first-class condition in every particular.

In testimony whereof the said Coroner and Jurors hereunto set their hands this the 24th day of September, 1902.

T. A. FLEMING, *Coroner.*

REUBEN ANDERSON.

A. S. PRICHARD.

J. G. FLOYD,

E. R. NEELY,

A. R. NEELY,

J. R. FLOYD.

TABLE SHOWING THE NUMBER OF FATAL AND NON-FATAL ACCIDENTS, IN THE STATE, AND THEIR CAUSES, BY COUNTIES.
(F. Means Fatal; N. F. Non-Fatal.)

COUNTIES.	Fall of roof.		Fall of coal.		Fall of coal and roof.		Mine cars.		Explosions of gas.		Explosions of powder.		Explosions of powder & smoke.		Explosions of dust.		Premature explosions.		Blast & coal.		Brimshots.		Mine machines.		Locomotives.		Motors.		Mules.		Tail chain.		Electrocuted.		Smoke-stk fell.		Timbers fell.		
	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	F.	N. F.	
Harrison ..	4	9	5	4	2	1	8	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Marion ..	8	5	1	1	1	1	1	15	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Monongalia ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Ohio ..	2	10	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Kauawha ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Mason ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Putnam ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Fayette ..	15	15	6	3	1	1	7	7	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Raleigh ..	15	7	1	4	4	4	4	4	17	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
McDowell ..	6	3	1	1	1	1	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Mercer ..	4	3	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Mingo ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Barbour ..	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Grant ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Mineral ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Preston ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Randolph ..	6	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Taylor ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Tucker ..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Totals ..	67	78	27	28	2	1	19	57	24	6	4	9	1	1	1	2	4	4	4	8	1	4	3	1	1	2	6	1	2	6	1	1	2	2	1	1	1	1	1

COMPARATIVE STATEMENT OF THE NUMBER OF MEN EMPLOYED, MEN KILLED, AND THE PRODUCTION OF COAL FROM 1883 to 1903, INCLUSIVE.—(COMMERCIAL MINES).

FOR YEAR ENDING.

	No. Inside Em- ploys.	No. Outside Em- ploys.	Total Employes (excluding coke men).	Killed by falls of roof.	Killed by mine cars.	Killed by explo- sions.	Killed by other causes.	Total killed.	Total tons of coal mined (tons of 2,240 lbs).	Tons mined for each inside em- plove.	Tons mined for each person killed inside.	No. of persons killed inside for every 1,000 in- side employes.	No. inside em- ploys for every person killed in- side.
December 31, 1883.	5,343	1,051	6,394	17	8	.....	.....	20	2,805,565	525	147,661	3.55	281
December 31, 1884.	4,627	1,724	6,351	no report	3	.....	.....	23	2,401,642	627	.....	.....	274
December 31, 1885.	5,486	1,806	7,292	16	4	3	.....	23	3,008,061	548	150,404	3.64	138
December 31, 1886.	6,081	1,181	7,262	4	2	39	.....	31	3,213,063	528	73,024	7.23	138
From January 1, 1887, to June 30, 1888.	7,203	1,187	8,456	27	2	.....	.....	38	5,809,223	790	187,394	4.26	234
June 30, 1889.	7,764	1,242	9,006	9	2	.....	.....	13	4,506,859	588	415,169	1.41	706
June 30, 1890.	9,173	2,324	11,497	21	2	.....	.....	27	5,643,946	615	235,168	2.61	382
June 30, 1891.	10,434	2,589	13,023	22	4	.....	.....	36	7,281,430	690	251,084	2.78	350
June 30, 1892.	11,776	2,118	13,894	27	6	.....	.....	36	7,777,570	660	222,216	2.90	336
June 30, 1893.	14,204	1,086	15,290	54	6	.....	.....	60	9,758,054	686	145,642	4.71	212
June 30, 1894.	15,682	1,902	17,584	49	6	.....	.....	55	9,428,065	601	171,419	3.50	285
June 30, 1895.	16,692	1,896	18,588	51	12	12	.....	83	9,874,069	591	134,988	4.73	211
June 30, 1896.	20,257	1,814	22,071	48	6	.....	.....	65	11,937,408	589	205,818	2.86	349
June 30, 1897.	17,069	2,047	19,116	47	6	.....	.....	62	11,571,900	678	182,845	3.51	284
June 30, 1898.	18,502	2,148	20,740	67	12	.....	.....	87	14,154,865	761	186,248	4.08	244
June 30, 1899.	19,634	2,461	22,095	64	13	.....	.....	89	16,100,150	820	203,799	4.02	248
June 30, 1900.	21,820	2,815	24,635	61	15	57	.....	141	18,796,911	858	140,879	6.09	164
June 30, 1901.	25,693	3,467	29,160	76	20	29	.....	130	20,115,901	782	166,247	6.70	212
June 30, 1902.	27,720	4,023	31,743	79	23	.....	.....	120	23,179,083	836	210,718	3.96	252
June 30, 1903.	30,450	5,151	35,601	96	19	32	.....	159	22,733,698	743	154,651	4.82	207
Totals.....	225,766	44,032	339,798	835	166	202	98	1,301	210,597,703	712	174,336	4.05	245

* Accidents for 2nd District only. No report for 1st District.

*FATAL ACCIDENTS, BY CAUSES, IN WEST VIRGINIA, 1883, To
1903.*

CAUSES.	Year ending Dec. 31st				Jan. 1887, to June 30, 1888.	Year ending June 30th.																Totals.	Per Cent.
	1883	1884*	1885	1886		1889	1890†	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903			
Falls of roof, coal, etc.....	17	...	16	5	27	10	20	21	22	54	49	51	48	47	68	64	61	76	79	96	831	64.0	
Mine cars	3	...	4	2	2	...	3	3	5	8	6	12	8	7	11	13	15	20	23	19	164	12.6	
Gas and powder explosions .....	...	...	3	39	...	...	2	6	1	5	...	12	1	2	2	4	57	29	7	32	202	15.5
Other .....	...	...	...	2	2	3	2	7	3	5	4	8	8	6	9	8	8	5	11	12	103	7.9
Total	20	...	23	48	31	13	27	37	31	72	59	83	65	62	90	89	141	130	120	159	1,300	100.0	

*No report.

+No report for 1st mining district.

*FATAL ACCIDENTS INSIDE AND OUTSIDE FROM 1883 to 1892
INCLUSIVE.*

Inside.

CAUSES.	1883	1884	1885	1886	*1887-88	1889	+1890	1891	1892	Totals.	Percent- age.
Falls of coal, slate and roof.....	17	...	16	4	27	9	21	23	27	143	67.14
Mine cars.....	2	no report.	1	1	2	...	1	2	5	14	6.57
Explosions of gas.....	...	...	3	39	...	...	...	4	1	47	22.07
Explosions of powder, dust and blasts.....	...	...	...	...	...	...	...	1	1	4	1.87
Locomotives.....	...	...	...	...	...	...	...	...	...	...	...
Miscellaneous.....	...	no report.	...	...	...	2	...	...	1	5	2.35
Totals.....	19	...	20	44	31	11	24	29	35	213	100.00

Outside.

CAUSES.	1883	1884	1885	1886	*1887-88	1889	+1890	1891	1892	Totals.	Percent- age.
Cars.....	1	no report.	3	1	...	...	1	2	1	9	42.86
Locomotives.....	...	...	...	1	...	...	...	...	...	2	9.52
Miscellaneous.....	...	...	...	...	...	1	...	5	...	10	47.62
Totals.....	1	...	3	4	...	2	3	7	1	21	100.00

*The accidents are for the 18 months from January 1st, 1887 to June 30, 1888.

+Accidents reported for 2nd District only.

FATAL ACCIDENTS, INSIDE AND OUTSIDE, 1893 to 1903, INCLUSIVE.

Inside.

CAUSES.	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Totals.	Percent- age.
Falls of coal, roof and slate.....	54	49	51	48	47	67	64	61	76	79	96	692	70.26
Mine cars.....	5	4	9	4	6	6	7	11	11	13	12	88	8.93
Explosion of gas.....	...	...	...	...	...	1	...	50	10	...	24	85	8.63
Explosions of powder, dust and shots.....	5	...	15	1	2	1	4	6	19	7	8	68	6.91
Mules.....	...	...	1	...	...	...	...	...	1	...	1	3	.30
Mine machines.....	1	...	...	...	...	...	...	...	1	...	1	3	.50
Motors.....	...	...	...	...	...	...	...	1	...	...	...	1	.10
Locomotives.....	...	...	1	...	2	1	...	2	1	...	1	8	.81
Miscellaneous.....	2	2	2	5	3	...	4	2	2	11	4	37	3.76
Totals.....	67	55	79	58	60	76	79	133	121	110	147	985	100.00

Outside.

CAUSES.	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Totals.	Percent- age.
Cars.....	5	2	3	5	2	9	6	7	9	10	7	65	79.27
Machinery.....	...	...	...	...	...	1	1	1	...	...	...	2	2.44
Boiler explosions.....	...	...	...	...	...	...	...	1	...	...	...	1	1.22
Locomotives.....	...	...	1	...	...	...	...	...	...	...	...	4	4.88
Miscellaneous.....	2	2	...	2	...	1	2	...	...	...	3	10	12.19
Totals.....	5	4	4	7	2	11	10	8	9	10	12	82	100.00

TABLE SHOWING THE NUMBER KILLED INSIDE OF THE MINES BY FALLS PER EACH 1,000 PERSONS EMPLOYED INSIDE OF THE MINES IN THE STATES OF OHIO, ILLINOIS, PENNSYLVANIA AND WEST VIRGINIA, FROM 1897 to 1902, INCLUSIVE.

YEARS.	Ratio Killed by Falls of Coal, Slate and Roof Per 1000 Inside Employes.				
	Ohio.	Illinois.	Pennsyl- vania Bitu- minous Mines.	Pennsyl- vania Anthra- cite Mines.	West Virginia.
1897.....	1.07	1.52	1.50	2.13	2.75
1898.....	1.47	1.36	1.92	2.04	3.60
1899.....	1.52	1.54	2.18	2.45	3.26
1900.....	1.52	1.44	1.79	1.86	2.79
1901.....	1.38	1.43	1.95	2.29	2.95
1902.....	1.59	1.42	2.02	1.18	2.90
Averages.....	1.43	1.45	1.89	1.99	3.04
903.....	.....	1.65	.....	.....	3.15
Averages.....	.....	1.48	.....	.....	3.06

TABLE SHOWING THE NATIONALITIES OF PERSONS KILLED AND CAUSES OF ACCIDENTS AT THE MINES FOR THE YEARS 1902 and 1903.

NATIONALITIES.	1902							1903										
	Causes.							Causes.										
	Falls of coal, slate and roof.	Mine cars.	Explosions of gas.	Explosions of powder, dust and blasts.	Mules.	Other causes.	Total number killed inside.	Total number killed outside.	Falls of coal, slate and roof.	Mine cars.	Explosions of gas.	Explosions of powder, dust and blasts.	Mules.	Other causes.	Total number killed inside.	Total number killed outside.	Total number killed inside and outside.	
American.....	31	7	.....	7	.....	9	54	9	63	40	4	7	2	1	5	59	8	67
Negro.....	21	4	.....	.....	.....	1	26	1	27	18	3	11	1	.....	1	35	4	39
Italian.....	2	1	.....	.....	.....	1	10	.....	10	6	1	1	.....	.....	.....	8	.....	8
Hungarian.....	12	.....	.....	.....	.....	.....	12	.....	12	13	2	1	1	.....	.....	17	.....	17
Polish.....	4	.....	.....	.....	.....	.....	4	.....	4	8	.....	.....	1	.....	.....	9	.....	9
English.....	2	.....	.....	.....	.....	.....	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Slavish.....	1	1	.....	.....	.....	.....	2	.....	2	4	.....	2	.....	.....	.....	5	.....	5
German.....	1	.....	.....	.....	.....	.....	1	.....	1	1	.....	1	.....	.....	.....	3	.....	3
Scotch.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Irish.....	1	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	1	.....	1
Austrian.....	2	.....	.....	.....	.....	.....	2	.....	2	.....	.....	.....	.....	.....	.....	2	.....	2
Russian.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lithuanian.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	1
Bulgarian.....	1	.....	.....	.....	.....	.....	1	.....	1	1	.....	1	.....	.....	.....	2	.....	2
Welsh.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	1
Turkish.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Danish.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Swede.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	.....	1
Unknown.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	79	13	.....	7	.....	11	110	10	120	96	12	24	8	1	6	147	12	159

NATIONALITIES OF PERSONS KILLED AND INJURED—1903.

NATIONALITIES.	Fatal.	Non-Fatal.	Totals.
American	67	132	199
Negro.....	39	32	71
Italian.....	8	18	26
Hungarian.....	17	10	27
Polish.....	9	6	15
English.....	.....	1	1
Slavish.....	5	2	7
German.....	3	7	10
Irish.....	1	3	4
Austrian.....	2	2	4
Lithuanian.....	1	.....	1
Welsh.....	2	1	3
Turkish.....	1	.....	1
Danish.....	2	.....	2
Swede.....	1	.....	1
Unknown.....	1	9	10
Totals.....	159	223	382

AGES OF PERSONS KILLED AND INJURED—1903.

AGES.	Fatal.	Non-Fatal.	Totals.
14 years or younger.....	3	7	10
15 ".....	2	4	6
16 ".....	2	3	5
17 ".....	4	8	12
18 ".....	6	9	15
19 ".....	5	11	16
20 ".....	2	7	9
20 " to 25 years including 25.....	47	52	99
25 " " 30 " ".....	32	39	71
30 " " 35 " ".....	16	32	48
35 " " 40 " ".....	11	17	28
40 " " 45 " ".....	13	19	32
45 " " 50 " ".....	6	4	10
50 " " 55 " ".....	3	2	5
55 " " 60 " ".....	1	1	2
60 " " 65 " ".....	1	.....	1
Unknown.....	5	8	13
Totals.....	159	223	382

TERMS OF EXPERIENCE OF PERSONS KILLED AND INJURED AT THE WEST VIRGINIA COAL MINES.

TIME OF EXPERIENCE.	1901			1902			1903		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
3 month or less.....	18	30	48	19	25	44	26	44	70
Over 3 mo. and including 6 mo.....	6	13	19	9	8	17	5	21	26
over 6 mo. " " 12 mo.....	13	20	33	13	30	43	21	31	52
2 years.....	8	16	24	14	26	40	15	15	30
3 years.....	4	5	10	6	12	18	4	14	18
4 years.....	4	7	11	8	10	18	8	8	16
5 years.....	2	9	11	6	10	16	12	15	27
6 years.....	3	10	13	2	6	8	3	3	6
7 years.....	2	2	4	1	6	7	2	5	7
8 years.....	4	5	9	3	4	7	6	4	10
9 years.....	.....	3	3	1	4	5	2	1	3
10 years.....	6	1	7	1	20	27	5	9	14
Over 10 years and including 15 years.....	7	8	15	5	5	10	10	5	15
Over 15 " " " 20 " ".....	3	8	11	2	5	7	5	4	9
Over 20 " " " 25 " ".....	.....	1	1	2	.....	2	.....	2	2
Over 25 " " " 30 " ".....	1	2	3	1	1	2	.....	2	2
Over 30 " " " 35 " ".....	.....	1	1	1	1	2	.....	.....	.....
Over 35 " " " 40 " ".....	1	.....	1	.....	5	5	.....	1	1
Over 40 " " " 45 " ".....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 45 " " " 50 " ".....	.....	1	1	.....	.....	.....	.....	.....	.....
Several years.....	6	5	11	2	5	7	10	11	21
Many years.....	.....	2	2	2	6	8	1	3	4
Always.....	3	3	6	.....	2	2	1	3	4
Unknown.....	39	28	67	16	48	64	23	22	45
Totals.....	130	180	310	120	239	359	159	223	382

TABLE EXHIBITING THE CAUSES OF FATAL AND NON-FATAL ACCIDENTS AND THE NUMBER AND PERCENTAGE BY EACH CAUSE.

1903.

CAUSES.	Fatal.	Non-Fatal.	Totals.	Percentage.
Fall of roof.....	67	78	145	37.96
Fall of coal.....	27	28	55	14.40
Fall of coal and roof.....	2	1	3	.79
Mine cars.....	19	57	76	19.90
Explosions of gas.....	24	6	30	7.86
Explosions of powder.....	4	9	13	3.40
Explosions of powder smoke.....	1	1	2	.26
Explosions of dust.....	1	1	2	.26
Premature explosions.....	1	2	3	.53
Blasting coal.....	4	4	8	2.09
Blownout shots.....	1	8	9	2.09
Mine machines.....	1	4	5	1.31
Locomotives.....	3	1	4	1.04
Motors.....	1	1	2	.26
Mules.....	2	6	8	2.09
Tail chain.....	1	1	2	.26
Electrocuted.....	2	1	3	.53
Smoke stack fell.....	1	1	2	.26
Timbers fell.....	1	2	3	.53
Tippie collapsed.....	1	1	2	.26
Cog wheel on tippie.....	1	1	2	.26
Fell from tippie.....	1	1	2	.26
Fell down shaft.....	1	1	2	.26
Fell down embankment.....	1	1	2	.26
Fell off steps.....	1	1	2	.26
Struck timbers.....	1	1	2	.26
Struck rock in roof.....	1	1	2	.26
Railroad cars.....	1	1	2	.26
Caught on rail.....	1	1	2	.26
Water-box.....	1	2	3	.53
Struck by lever.....	1	2	3	.53
Set fire to clothes.....	1	1	2	.26
Loose coal on incline.....	1	1	2	.26
Totals.....	159	223	382	100.00

*ACCIDENTS TABULATED ACCORDING TO THE DAYS OF THE
WEEK ON WHICH THEY OCCURRED—1903.*

FATAL ACCIDENTS.

	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Totals.
Inside	2	3	23	22	28	27	8	147
Outside	1	1	.....	12	12	1	5	12
Totals,	3	38	23	24	30	28	13	159

NON-FATAL ACCIDENTS.

	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Totals.
Inside.....	1	33	41	40	33	34	26	208
Outside.....	1	6	1	1	3	2	1	15
Totals.	2	39	42	41	36	36	27	223

SUMMARY, FATAL AND NON-FATAL ACCIDENTS.

	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Totals.
Inside.	3	70	64	62	61	61	34	355
Outside.....	2	7	1	3	5	3	6	27
Totals.....	5	77	65	65	66	64	40	382

FATAL ACCIDENTS FOR THE YEAR ENDING JUNE 30, 1903.

No.	COUNTY.	NAME OF MINE.	Name of Person Killed.	Date of		Nationality.	Length of experience.	Age.	Occupation.	Married or single.	Widow.	Orphans.	Total No. dependants.	Insurance and amount.	How Killed.	Inquest. no.
				Injury.	Death.											
1	Harrison	Columbia	Wm. Gower 4, Jr	7-21 '02	7-25 '02	American.	2 yrs	14	Driver	M	yes	..	..	\$	Mine cars (inside)	..
2	"	Pinnickmick	Paul Dunkoe	8-19 '02	8-19 '02	Hungarian	1 day	44	Miner	M	yes	..	1	..	Fall of slate.	..
3	"	Pinnickmick	Simon Trendafil	9-19 '02	9-19 '02	Turk	2 mos	18	Laborer	M	..	..	..	..	Mine cars (inside)	..
4	"	Ocean	Thomas Clara	12-14 '02	12-15 '02	Austrian	2 yrs	29	Miner	M	..	..	..	..	Fall of soapstone	..
5	"	Viropa	Grande Busario	1-22 '03	1-22 '03	Italian	2 mos	24	Laborer	M	yes	2	3	..	Fall of coal	..
6	"	Farmum	Charles Jascon	2-2 '03	2-2 '03	Italian	6 mos	30	Miner	M	..	..	..	..	Fall of coal	..
7	"	Phenix	S. Majewski	2-10 '03	2-10 '03	Pole	6 mos	26	Laborer	M	yes	1	1	..	Fall of rock	..
8	"	Lynch	Frank Handshu-maker	3-13 '03	3-13 '03	American.	2 mos	17	Driver	M	..	..	..	..	Fall of slate	..
9	"	Harbert	Georgt Daoch	3-17 '03	3-17 '03	Hungarian	2 wks	38	Miner	M	yes	4	5	..	Mine cars (inside)	..
10	"	Pinnickmick	John Shefcheck	4-2 '03	4-2 '03	Slav	9 mos	24	Miner	M	..	..	..	..	Fall of coal	..
11	"	Pinnickmick	Duncan Bunnell	4-2 '03	4-2 '03	American.	2 yrs	27	Miner	M	yes	4	5	..	Fall of coal	..
12	"	Fall Run	John Miholski	5-5 '03	5-6 '03	Pole	11 mos	26	Miner	M	..	..	..	..	Fall of coal and slate.	..
13	"	Pooz	Andy Jurick	5-21 '03	5-25 '03	Slav	4 yrs	32	Mine boss	M	yes	2	3	..	Explosion of gas.	..
14	"	Pooz	Mike Tynal	5-26 '03	5-26 '03	Slav	30 yrs	43	Miner	M	..	..	..	..	Fall of coal	..
15	"	Viropa	Irvin Barker	6-11 '02	6-11 '03	American.	1 1/2 yrs	25	Mch. loader	M	yes	2	3	..	Fall of coal and slate	..
16	Marion	Chelton	John Lajkun	7-22 '02	7-22 '02	Slav	2 days	18	Miner	M	..	..	..	..	Fall of slate	..
17	"	Chelton	B. Pignauelli	9-9 '02	9-9 '02	Italian	1 1/2 yrs	43	Miner	M	yes	6	7	..	Fall of slate	..
18	"	Stafford	Moses Williams	9-22 '02	9-22 '02	Welsh	lif time	41	Miner	M	yes	1	1	..	Explosion of gas	yes
19	"	Stafford	Karl Koch	9-22 '02	9-22 '02	German.	sev 1 yrs	30	Shooter	M	yes	1	1	..	Explosion of gas	..
20	"	Stafford	August Ammiel	9-22 '02	9-22 '02	German.	sev 1 yrs	32	Miner	M	..	..	..	..	Explosion of gas	..
21	"	Stafford	M. L. Tarquina	9-22 '02	9-22 '02	Italian	1 yr	35	Miner	M	..	..	..	..	Explosion of gas	..
22	"	Stafford	John Keating	9-22 '02	9-22 '02	American.	1 yr	25	Laborer	M	..	..	..	..	Explosion of gas	..
23	"	Stafford	R. H. Hoover	9-22 '02	9-22 '02	American.	5 yrs	57	Laborer	M	yes	3	4	..	Smoke stack fell on him (outside)	no.
24	"	New England	Asa H. Hall	9-27 '02	9-27 '02	American.	5 yrs	21	Laborer	M	yes	3	4	..	Smoke stack fell on him (outside)	no.
25	"	Middleton	W. Ketchler	11-5 '02	11-5 '02	German.	1 1/2 mos	45	Miner	M	..	..	..	..	Fall of slate	..
26	"	Fed 1 shift No. 1	Charles Preston	12-4 '02	12-4 '02	Negro	13 mos	22	Driver	M	..	..	..	..	Mine cars (inside)	..
27	"	New England	John Paulick	12-12 '02	12-12 '02	Austrian	8 mos	29	Shoveling C.	M	yes	1	2	..	Fall of slate	..
28	"	Montana	John Zubric	1-26 '03	1-29 '03	Hungarian	7 yrs	50	Miner	M	yes	2	3	..	Fall of coal	..
29	"	Mon igh No. 2	A. G. Rice	3-3 '03	3-3 '03	American.	10 yrs	49	Miner	M	..	..	..	..	Fall of slate	..
30	"	Mon igh No. 2	I. Lapinsky	3-27 '03	3-27 '03	Pole	9 yrs	55	Miner	M	yes	4	5	..	Fall of slate	..
31	"	Montana	Joseph Orban	4-10 '03	4-10 '03	Hungarian	1 wk	45	Slate man	M	yes	5	6	..	Fall of slate	..
32	"	Montana	Joseph Cowan	5-19 '03	5-19 '03	Hungarian	1 yr	45	Miner	M	yes	2	3	..	Fall of slate	..
33	"	Elm Grove	John Knox	1-21 '03	1-21 '03	Negro	15 yrs	52	Miner	M	..	..	..	..	Fall of slate	..
34	"	Richland	John Muir	4-25 '03	4-25 '03	American.	15 yrs	31	M r & dr ver	M	..	..	..	120 00	Mine cars (inside)	..
35	"	Winifrede S	H. W. Adkins	8-6 '02	8-6 '02	American.	20 yrs	30	Miner	M	yes	3	4	200 00	Fall of coal	..
36	"	Sycamore	Luther Sayers	12-2 '02	12-2 '02	American.	2 yrs	34	Miner	M	no	6	6	..	Blasting coal	..
37	"	Winifrede N	Simon Petry	12-5 '02	12-15 '02	American.	15 yrs	50	track layer	M	yes	1	2	200 00	Fall of slate	..

FATAL ACCIDENTS FOR THE YEAR ENDING JUNE 30, 1903.—Continued.

No.	COUNTY.	NAME OF MINE.	Name of Person Killed.	Date of		Nationality.	Length of experience.	Age.	Occupation.	Married or single.	Widow.	Orphans.	Total No. dependants.	Insurance and amount.	How Killed.	Inquest.
				Injury.	Death.											
38	Kanawha	Paint Creek.	Thomas Wade.	3-28, '03	3-29, '03	American.	8 yrs.	26	Runner	M	yes	2	3	\$ 50 00	Mine machine	no.
39	"	K. & H. No. 105	Ellam F. Hanna	5-18, '03	5-18, '03	American.	7 yrs.	63	Chk-w'gh an	M	yes	2	3	50 00	Tipple collapsed.	"
40	"	K. & H. No. 108 west.	Charles Vance.	6-5, '03	6-5, '03	American.	12 yrs.	30	Miner	M	no	3	3	50 00	Fall of slate.	"
41	Putnam	Plymouth	Evan Leeg	12-5, '02	12-5, '02	American.	10 yrs.	48	Motorman	M	yes	2	3		Electrocuted	"
42	"	Plymouth	James Rowden	5-15, '03	5-15, '03	Negro.	15 yrs.	48	Miner	M	yes	2	3		Fall of slate	"
43	Fayette	Collins No. 1	E. Wachinsky	8-28, '02	8-28, '02	Hung rian	5 yrs.	30	Miner	M	yes	2	3	50 00	Blasting Coal.	yes
44	"	Sun	Edward Reese.	9-25, '02	10-7, '02	American.	15 yrs.	33	Miner	M	yes	2	3		Fall of slate	no.
45	"	Whipple	John P. Owens.	10-7, '02	10-10, '02	American.	15 yrs.	33	Mch. runner	M	yes	2	3		Fall of slate	"
46	"	Red Ash	W. J. Daniels.	10-10, '02	10-10, '02	American.	10 yrs.	28	Miner	M	yes	2	3		Mine cars (outside).	"
47	"	Read B. No. 1	G. W. Hodges.	10-31, '02	10-31, '02	American.	sev yrs	22	Miner	M	yes	2	3		Fall of coal.	"
48	"	Elverton or New Caperton	Frank Miller	11-27, '02	11-27, '02	Pole.	1 mo.	40	Miner	M	yes	2	3		Blasting coal.	"
49	"	Star	Lucian Gary	12-3, '02	12-4, '02	Negro.	3 mos.	22	Miner	M	yes	2	3		Blasting coal.	"
50	"	Red Ash	Phelix Brandon	12-6, '02	12-6, '02	American.	sev yrs	24	Driver	M	yes	2	3		Fall of slate.	"
51	"	Read	W. O. Ackley	12-13, '02	12-13, '02	American.	sev yrs	24	Miner	M	yes	2	3		Struck by engine (o' tside)	"
52	"	Gt. Kanawha														
53	"	Gas No. 2	Willis Dawson	12-19, '02	12-19, '02	Negro.	2 wks.	15	Laborer	M	yes	2	3		Fall of coal.	"
54	"	Boomer No. 3	Lafay. Stewart	12-19, '02	12-20, '02	American.	1 mo.	21	Driver	M	yes	2	3		Mine cars (inside)	"
55	"	Dunloop No. 1	Lowell Davis	1-6, '03	1-6, '03	Negro.	17 yrs.	38	Miner	M	yes	1	1	25 00	Fall of coal.	"
56	"	Prudence	John Hill	1-15, '03	1-15, '03	Negro.	30 yrs.	30	Miner	M	yes	2	3		Explosion of powder	"
57	"	Rush Run	Jasper Mulliaux	1-19, '03	1-19, '03	American.	5 mos.	22	Laborer	M	yes	2	3		Mine cars (inside)	"
58	"	Rush Run	Massie Barker	1-19, '03	1-19, '03	American.	6 yrs.	18	Driver	M	yes	2	3		Kicked by mule (inside)	"
59	"	Collins No. 2	John Sogat	1-20, '03	1-22, '03	Hung rian	18 mos.	25	Miner	M	yes	2	3		Fall of slate	"
60	"	Collins No. 2	Andrew Segat.	1-20, '03	2-6, '03	Hung rian	1 yr	30	Miner	M	yes	2	3	50 00	Fall of slate	"
61	"	Collins No. 1	Joseph Kaszas	1-31, '03	1-31, '03	Hung rian	1 yr	25	Miner	M	yes	4	5		Fall of slate	"
62	"	Crescent No. 1	J. Bun. Gibson.	2-18, '03	2-18, '03	American.	10 yrs.	43	Miner	M	yes	4	5		Electrocuted	"
63	"	or Eagle	John Johnston	3-6, '03	3-6, '03	Negro.	2 days.		Miner	M	yes	4	5		Fall of slate	"
64	"	Cliff Top	W. D. Cunningham	3-19, '03	3-19, '03	American.	sev yrs	22	Miner	M	yes	1	1		Fall of slate	"
65	"	Turkey Knob.	ham.	4-15, '03	4-15, '03	Negro.	1 yr	14	Driver	M	yes	1	1		Fall of coal.	"
66	"	Collins No. 2	Tom Carter	4-18, '03	4-18, '03	Negro.	sev yrs	30	Miner	M	yes	1	1	500 00	Mine car (outside)	"
67	"	Ballinger No. 1	Lee Green	4-22, '03	4-22, '03	Negro.	1 yr	22	Rockman	M	yes	2	3	50 00	Fall of slate	"
68	"	Stuart	G. M. Evans.	5-16, '03	5-17, '03	Welsh	23	23	Miner	M	yes	2	3		Fall of coal	"
69	"	Read B. No. 1	Allen Lineon	5-21, '03	5-21, '03	American.	1 day	22	Driver	M	yes	2	3		Fall of slate	"
70	"	Derryhale	Otis Comer	5-28, '03	5-28, '03	Hung rian	3 yrs.	42	Miner	M	yes	1	1		Fall of slate	"
71	"	Collins No. 2	Andrew Koval	6-2, '03	6-2, '03	Negro.	20 yrs.	32	Miner	M	yes	1	2		Mine cars (inside)	"
72	"	Prudence	James Williams	6-8, '03	6-8, '03	American.	1 yr	18	Miner	M	yes	1	2		Fall of slate	"
73	"	Read No. 2	Frank Bolen	6-8, '03	6-8, '03	American.	1 yr	18	Miner	M	yes	1	2		Fall of slate	"

FATAL ACCIDENTS FOR THE YEAR ENDING JUNE 30, 1903.—Continued.

COUNTY.	NAME OF MINE.	Name of Person Killed.	Date of		Nationality.	Length of experience.	Age.	Occupation.	Married or single.	Widow.	Orphans.	Total No. dependants.	Insurance and amount.	How Killed.	Inquest. no.
			Injury.	Death.											
McDowell	Elk Ridge.....	James Milton...	5-23, 03	5-24, 03	03 Negro.....	22 years	19	Brakeman..	M				\$50 00	Run over by engine (outs)	no.
122	Empire.....	Wm. Williamson	5-27, 03	5-27, 03	03 Negro.....	3 years	23	Laborer....	M					Mine cars (outside)	no.
123	Short Creek...	Jacob Johnson...	5-27, 03	5-30, 03	03 Danish...	21	21	Miner.....	M					Powder explosion	no.
124	Short Creek...	Charles Nelson	5-27, 03	6- 2, 03	03 Danish...	22	22	Miner.....	M					Powder explosion	no.
125	Turkey Gap...	Frank Putlavish	5-28, 03	6- 1, 03	03 Pole.....	15 yrs.	35	Miner.....	M					Fall of slate.	no.
126	Algoma Big 4...	Sam Wray.....	6-11, 03	6-11, 03	03 Negro.....	4 years	35	Miner.....	M					Fall of slate.	no.
127	Bottom Creek.	Harry Fisher...	6-18, 03	6-18, 03	03 Pole.....	3 days.	30	Laborer....	M					Fall of slate.	no.
128	Keystone.....	Wm. Heath.....	6-19, 03	6-19, 03	03 American.	1 mo.	16	Trapper....	M					Run over by engine (inside)	no.
129	Booth-Powen	R. L. Roberts...	9-22, 02	9-22, 02	02 American.	3 mos.	34	Laborer....	M					Fall of coal	no.
130	Pinnacle, 8th	Bud Warwick...	11-17, 02	11-17, 02	02 American.	3 mos.	35	Miner.....	M					Fall of slate	no.
131	Coaldale.....	John Hospota...	11-30, 02	12-11, 02	02 Hungarian	3 wks.	19	Slate man..	M					Fall of slate	no.
132	Pinnacle.....	H. H. Bowman.	12-11, 02	12-11, 02	02 American.	3 yrs.	30	Miner.....	M					Explosion of powder.	no.
133	Buckeye.....	Walter Scales.	12-17, 02	12-17, 02	02 Negro.....	3 years	30	Miner.....	M				50 00	Fall of slate	no.
134	Sagamore.....	J. L. Martin....	1-20, 03	1-25, 03	03 American.	6 mos.	35	Miner.....	M					Fall of slate	no.
135	Buckeye.....	Simon Sinal....	2- 6, 03	2- 6, 03	03 Hungarian	5 years	35	Miner.....	M					Fall of slate	no.
136	Lick Fork....	Virgil Clay....	1- 7, 03	1- 7, 03	03 American.	2 mos.	21	Miner.....	M					Fall of slate	no.
137	Grapevine....	William Sanson	1-22, 03	1-22, 03	03 American.	5 years	48	Miner.....	M	yes	6		50 00	Fall of slate	yes
138	Rutherford...	Wm. Mullett...	3-27, 03	3-27, 03	03 American.	5 mos.	50	Miner.....	M					Fall of slate	no.
139	Camp Branch.	E. Hutchinson.	6-18, 03	6-18, 03	03 American.	svl yrs	40	Miner.....	M	yes	2			Fall of rock.	no.
140	Laurel Creek.	Nils Pierson...	8-29, 02	8-29, 02	02 Swede....	5 years	29	Miner.....	M	yes	1			Fall of coal	no.
141	Cutney Shaft	Antony Balada	12- 3, 03	12- 3, 03	03 Lithuanian	45	45	Coal loader.	M					Fall of slate.	no.
142	Valley.....	Angust Hack...	2- 5, 03	2- 6, 03	03 American.	2 years	27	Track layer.	M					Fall of slate.	no.
143	Henry No. 22	Archie Jenkins	8- 5, 02	8- 5, 02	02 American.	6 years	39	Pumpman..	M	yes	2		3 200 00	Mine cars (inside)	yes
144	Grant.....	Adam Bernighs	3-17, 03	3-17, 03	03 Pole.....	12 yrs.	26	Miner.....	M	yes	1		2 200 00	Fell down shaft	no.
145	Shaft No. 33.	Patrick Kealey	4-11, 03	4-11, 03	03 American.	4 yrs.	27	Timberman.	M	yes	1			Fall of slate.	no.
146	Windom No. 8	Troxwell Liller	3- 4, 03	3- 5, 03	03 American.	5 years	18	Miner.....	M					Fall of rock.	no.
147	Mineral.....	George Patton.	4-28, 03	4-28, 03	03 American.	10 yrs.	24	Miner.....	M					Fall of coal	no.
148	Preston.....	G. W. Hummel	4-28, 03	4-28, 03	03 American.	3 years	33	Water-hall r	M					Mine car (inside)	no.
149	S. S. or No. 263	George Sapp...	6-10, 03	6-10, 03	03 American.	20 yrs.	41	Miner.....	M					Fall of coal	no.
150	S. S. or No. 263	James Comer...	1- 7, 03	1- 7, 03	03 Pole.....	2 years	45	Miner.....	M	yes	2		3 200 00	Fall of coal	no.
151	Rosamont....	Dominie Rublr	7-25, 02	7-25, 02	02 Pole.....	svl yrs	54	Timberman.	M	yes	3		*	Fall of slate	no.
152	No. 3 Douglas.	M. C. Benford.	9-18, 02	9-18, 02	02 American.	18	18	Driver.....	M	yes	1		*	Fall of slate	no.
153	No. 35.....	John Nazelrod.	10- 1, 02	10- 1, 02	02 Italian...	22	22	Miner.....	M					Fall of slate	no.
154	No. 25.....	Sullivan Valaros	10-14, 02	10-14, 02	02 Italian...	18	18	Miner.....	M	yes	1		*	Fall of slate	no.
155	No. 23.....	Tony Di John...	1- 8, 03	1- 8, 03	03 Italian...	19	19	Miner.....	M					Fall of slate	no.
156	No. 36.....	Joseph Bigoteel	2-18, 03	2-18, 03	03 Italian...	8 years	22	Driver.....	M	yes	2		3 200 00	Mine car (inside)	no.
157	No. 35.....	Arthur Luzader	5-14, 03	5-14, 03	03 American.	12 years	30	Slate man..	M	yes	2			Fall of slate	no.
158	No. 37.....	Casmer Smigle	5-15, 03	5-15, 03	03 Pole.....	12 years	30	Slate man..	M	yes	2			Fall of slate	no.
159	No. 1 Douglas.														

* Relief fund.

NON-FATAL ACCIDENTS FOR THE YEAR ENDING JUNE 30, 1903.

No.	COUNTY.	NAME OF MINE.	Name of Person Injured.	Date of Accident.	Nationality.	Length of experience.	Age.	Occupation.	Nature of Accident.	Injuries Sustained.
1	Harrison..	Pinnicknick	Late Bryan.	7-7, '02	American.	4 years.	17	Driver	Mine cars (inside)	Leg fractured and cut.
2	"	Ocean.	John C. Mulligan	7-22, '02	American.	8 days.	26	Rope rider	Mine car (inside)	Several bones mashed in foot.
3	"	O'Neil No. 1.	J. F. Whugh	7-31, '02	American.	1 year.	38	Miner	Mine cars (inside)	Collar bone dislocated.
4	"	Pinnicknick	John Vassella	8-5, '02	German.	1 mo.	30	Mach. scraper	Fall of slate	Knee and back strained.
5	"	Harbert	J. F. Dorsey	9-18, '02	American.	2 wks.	22	Driver	Mine car (inside)	One collar bone broken, other dislocated.
6	"	Gypsy	Wm. Hyros	10-10, '02	Austrian.	3 mos.	43	Loader	Mine cars (inside)	Foot and ankle badly mashed.
7	"	Gypsy	Dom. Cassato	11-3, '02	Italian	6 mos.	24	Miner	Mine cars (inside)	Leg fractured.
8	"	Riverdale.	Salvatore Trate.	11-6, '02	Italian	1 year.	27	Miner	Fall of slate	Left leg fractured.
9	"	Enterprize.	J. E. Anderson.	11-10, '02	American.	2 years	40	Miner	Fall of coal	Scalp wound and shoulder blade fractured.
10	"	O'Neil No. 2.	Phillip Schrader	11-29, '02	American.	1 year.	15	Driver	Mine car (inside)	Leg broken and hip bone splintered.
11	"	Reynoldsville.	C. D. Moore	12-3, '02	American.	1½ yrs	19	Miner	Fall of slate.	Leg broken, arm and shoulder bruised.
12	"	Cork	Cook & Hart & Co	12-4, '02	American.	6 mos.	35	Miner	Fall of slate	Back strained and leg broken.
13	"	Ehlen	Frank Long	12-6, '02	American.	3 mos.	22	Driver	Blownout shot.	Face, neck and wrist burned.
14	"	Ehlen	Frank Boggs	12-6, '02	American.	3 mos.	27	Roadman	Blownout shot.	Face and neck burned.
15	"	Ehlen	Fred Randall	12-6, '02	American.	1 mo.	19	Roadman	Blownout shot.	Face and neck burned.
16	"	Ehlen	Karoly Jalias.	12-6, '02	Hungarian	5 wks.	21	Miner	Blownout shot.	Face, neck, arms and back burned.
17	"	Ehlen	Thos. Horton	12-6, '02	English	3 mos.	40	Road foreman	Blownout shot.	Face, neck, back and hands burned.
18	"	Pinnicknick	Laslo Vass	12-31, '02	Hungarian	4 mos.	42	Miner	Fall of coal	Leg broken.
19	"	O'Neil No. 1.	Toney Denmark.	1-8, '03	Italian	1 mo.	44	Miner	Fall of slate	Leg fractured, body bruised and cut.
20	"	Interstate	Jacob C. Bowen.	2-2, '03	American.	2 mos.	25	Driver	Mine cars (inside)	Skull fractured, head cut.
21	"	Two Lick.	W. H. Workman	2-3, '03	American.	1 day	35	Miner	Blownout shot.	Face and hands burned.
22	"	O'Neil No. 1.	Ray Fowler	2-20, '03	American.	4 mos.	20	Driver	Mine car (inside)	Shoulder dislocated jaw broken.
23	"	Columbia	John Kyle.	3-9, '03	German	3 wks.	25	Coupler	Mine car (inside)	Collar bone broken.
24	"	Ocean.	Nick Demetrovic.	3-11, '03	Austrian.	4 mos.	23	Miner	Mine car (inside)	Chest, shoulders and back bruised.
25	"	Phoenix.	Wm. N. Fresh	3-26, '03	American.	10-15 yrs	35	Mine boss	Struck a rock in roof.	Breast bone fractured, head and body bruised.
26	"	Gypsy	W. A. Radcliffe.	3-27, '03	American.	1 year.	50	Driver	Mine car (inside)	Collar bone fractured, body bruised.
27	"	Gypsy	Geo. Kovacs	4-1, '03	Hungarian	3 wks.	45	Miner	Fall of coal.	Leg broken and crushed.
28	"	Harbert	Ira Trickett.	4-7, '03	American.	1 day.	20	Miner	Fall of slate	Leg broken below knee.

NON-FATAL ACCIDENTS FOR THE YEAR ENDING JUNE 30, 1903.—Continued.

COUNTY.	NAME of MINE.	Name of Person Injured.	Date of Accident.	Nationality.	Length of experience.	Age.	Occupation.	Nature of Accident.	Injuries Sustained.
Harrison.	Viropa.	Joseph Starcher.	4-14, '03	American.	40 days	19	Laborer.	Fall of slate.	Knee fractured, scalp and chest cut.
"	Interstate.	Wm. R. Jenkins.	5-5, '03	American.	1 year.	35	Driver.	Kicked by mule (inside).	Forearm broken in two places.
"	Ocean.	South D. Ramsey.	4-20, '03	American.	2 mos.	12	Coupler.	Mine cars (outside).	Arm cut off near shoulder.
"	Farnum.	Tony Senora.	5-3, '03	Italian.	1 year.	35	Miner.	Fall of coal.	Leg broken, cheek and nose bruised.
"	Gypsy.	L. M. Robinson.	6-12, '03	American.	9 mos.	24	Drummer.	Mine cars (outside).	Leg broken.
"	Mead w Brook	Antonio Bruno.	6-16, '03	Italian.	4 mos.	25	Miner.	Fall of slate.	Leg broken and back bruised.
"	Columbia.	John Kyle.	6-25, '03	German.	4 mos.	25	Mach. scraper.	Fall of slate.	Both legs broken, back and hips hurt.
Marion.	Gaston.	Mike Kopshik.	7-3, '02	Slav.	1 year.	28	Miner.	Fall of roof.	Leg fractured.
"	Mon g'h No. 3	Isaac White.	7-11, '02	American.	6 mos.	13	Trapper.	Mine cars (inside).	Skull fractured, head cut.
"	Chatham.	Homer Williams.	7-11, '02	American.	1 year.	21	Mach. man.	Mine machine.	Cut on heel.
"	Mon g'h No. 3	Joe Colandes.	7-12, '02	Italian.	2 years.	30	Miner.	Mine car (inside).	Leg broken and ankle mashed.
"	Hutchinson.	Tony Oliveto.	7-15, '02	Italian.	10 mos.	30	Miner.	Fall of slate.	Leg broken, scalp cut.
"	W. Fair Shaft	Walker Griffith.	8-2, '02	American.	9 mos.	35	Mach. helper.	Mine car (inside).	Collar bone broken.
"	W. Fair Shaft	Loyd Watkins.	8-4, '02	American.	5 years.	24	Brakeman.	Mine cars (inside).	Hip dislocated, abdomen hurt.
"	New England	N. J. Scritchfield.	8-11, '02	American.	1 day.	17	Driver.	Mine car (inside).	Leg and knee mashed.
"	W. Fair Shaft	Robt. Rogers.	8-12, '02	Italian.	5 years.	19	Driver.	Run over by mules (insd).	Leg broken in two places.
"	Pennots.	Frank Locell.	9-11, '02	American.	1 year.	23	Laborer.	Fell down embankment.	Neck broken.
"	Montana.	Earl Layman.	9-11, '02	American.	6 days.	13	Trapper.	Mine cars (inside).	Leg broken below knee.
"	Stafford.	G. Strompickie.	9-22, '02	German.	8 yrs	34	Miner.	Explosion of gas.	Burned.
"	"	Andrew Ammiel.	9-22, '02	German.	8 yrs	34	Miner.	Explosion of gas.	Slightly burned and scalp wound.
"	"	Jesse J. Wilson.	9-22, '02	American.	28	Miner.	"	"	Burned about body and head.
"	"	George F. Jenkins.	9-22, '02	American.	25	Miner.	"	"	Burned about body and head.
"	Hutchinson.	Sam Bilotti.	9-27, '02	Italian.	3 mos.	17	Driver.	Mine cars (inside).	Left leg broken below knee.
"	Mon g'h No. 3	Andy Breshi.	10-20, '02	Pole.	3 years.	18	Driver.	Mine cars (inside).	Foot mashed across instep.
"	Middleton.	Jos. Gray.	10-20, '02	Italian.	7 mos.	33	Laborer.	Cog wheel (outside).	Ankle and foot mashed.
"	New England.	G. Milt Hale.	11-5, '02	American.	7 years.	31	Miner.	Dust explosion.	Back, face, neck and hands burned.
"	Middleton.	Tom Lavata.	11-5, '02	Italian.	5 mos.	45	Miner.	Fall of slate.	Back sprained, chest mashed.
"	New England.	Fay Scott.	1-7, '03	American.	6 wks.	18	Driver.	Mine cars (inside).	Leg and six ribs broken, head cut.
"	Murray.	Jesse Harris.	1-10, '03	American.	4 years.	17	Driver.	Mine cars (inside).	Arm broken, wrist bruised and cut.
"	Anderson.	Frank Zulavek.	2-4, '03	Pole.	3 years.	25	Miner.	Fall of slate.	Leg broken and scalp wound.
"	Mon g'h No. 3	Roy Bollinger.	2-25, '03	American.	6 mos.	16	Trapper.	Mine cars (inside).	Scalp wound, shoulder and foot hurt.

	Mon'gah No. 2	Jas. H. Miller	3-17,	'03	American.	12 yrs.	19	Driver	Mine cars (inside)	Arm broken, shoulder and face bruised.
60	Marion....	Mon'gah No. 2	4-4,	'03	American.	1½ yrs	33	Laborer.	Mine cars (inside)	Leg fractured below knee.
61	"	L. E. Woodyard.	4-13,	'03	Italian.	5 mos.	19	Laborer.	Railroad car (outside)	Arm and hand mashed.
62	"	Salv'tor Guarosno	5-1,	'03	American.	1 mo.	22	Laborer.	Fell off steps (outside)	Arm broken, various bruises.
63	"	Ezra Lee....	5-5,	'03	American.	5 mos.	15	Trapper	Explosion of powder.	Face and hands burned.
64	"	W. L. Freeland.	5-18,	'03	American.	5 yrs.	38	Shoveling coal.	Mine cars (inside)	Collar bone and arm fractured
65	"	Mon'gah No. 6	5-18,	'03	American.	4 yrs.	40	Driver	Mine car (inside)	Leg crushed, 4 ribs broken.
66	"	Jeff Fluharty....								thigh broken.
67	"	Aurora....	6-1,	'03	American.	3 yrs.	42	Miner	Fall of slate	Leg broken above ankle.
68	Mon'gah	R. B. Satterfield	11-8,	'03	Irish	1 year.	25	Miner	Fall of slate.	Toes mashed.
69	Kanawha	Hugh Watson	9-20,	'02	American.	10 yrs.	25	Driver	Mule kicked him (inside).	Leg broken above knee.
70	"	John S. Williams	11-3,	'02	American.	sev yrs	25	Driver	Fall of s'late	Lip and chin cut, shoulders and head bruised.
71	"	Eddie Soulsby....	11-4,	'02	American.	sev yrs	25	Driver		Ankle dislocated, hips and back bruised.
72	"	Coal'b'g (Bel't)	11-21,	'02	American.	sev yrs	25	Driver	Caught foot on rail (ins.)	Ankle wrenched.
73	"	Coal'b'g (Bel't)	11-21,	'02	American.	sev yrs	25	Driver	Water-box (inside).	Back squeezed.
74	"	Fred Newman....	12-21,	'02	American.	5 mos.	24	Miner	Fall of slate	Back injured.
75	"	Geo. A. Rhodes	12-20,	'02	American.	5 yrs.	24	Mach. helper.	Fall of coal	Back and hips mashed.
76	"	K. & H. No. 108	12-22,	'02	American.	1 year.	28	Driver	Mine car (outside)	Leg fractured below knee.
77	"	Scranton Spl't	1-7,	'03	American.	5 yrs.	22	Miner	Fall of slate	Leg hurt and ankle dislocated.
78	"	Elk N. S. No. 2	1-8,	'03	American.	1 year.	28	Miner	Fall of slate	Thigh fractured.
79	"	Winifrede S.	1-12,	'03	American.	8 yrs.	25	Driver	Thrown by mule (o'side)	Arm broken.
80	"	Ronda	1-16,	'03	American.	8 yrs.	25	Laborer.	Mine cars (outside)	Leg sprained and face scratched.
81	"	Carbon South								Jaw bone and one rib fractured.
82	"	B. Band No. 4	1-21,	'03	American.	sev yrs	40	Driver	Mine car (inside)	Hip bruised.
83	"	William Pierce	2-2,	'03	American.	25 yrs.	45	Miner	Fall of coal	Arm fractured.
84	"	Evan Griffith....	2-4,	'03	American.	25 yrs.	45	Laborer	Mine car (outside)	Arm wrenched.
85	"	Wm. Nichols....	2-19,	'03	American.	25 yrs.	45	Miner	Fall of slate	Shoulders strained.
86	"	Belmont	2-24,	'03	American.	12 yrs.	23	Miner	Fall of coal	Thigh broken.
87	"	Wesley Douglas.	3-7,	'03	American.	10 yrs.	21	Laborer.	Mine machine.	Leg fractured in two places.
88	"	Ed. L. Chapman.	3-6,	'03	American.	30 days	25	Laborer.	Mine machine.	Leg broken.
89	"	Wiley Boles....	3-20,	'03	American.	4 yrs.	30	Driver	Mine car (inside)	One finger cut off and one mashed.
90	"	Spencer N. Dial.	3-30,	'03	American.	4 yrs.	30	Miner	Fall of coal	Leg broken.
91	"	Wm. Roberts....	3-27,	'03	American.	20 yrs.	45	Miner	Fall of slate.	Arm broken.
92	"	Joe Panley....	4-14,	'03	American.	2½ yrs.	15	Miner	Fall of slate.	Left thigh broken.
93	"	Jas. H. Burnside.	4-23,	'03	Negro....	2½ yrs.	43	Miner	Blasting coal	Breast and head hurt.
94	"	Calderwood	4-30,	'03	American.	6 yrs.	17	Driver	Kicked by mule (inside)	Jaw fractured.
95	"	Robinson No. 5	5-5,	'03	American.	20 yrs.	40	Miner	Fall of slate	Leg broken.
96	"	Paint Creek	5-19,	'03	American.	20 yrs.	51	Miner	Fall of coal	Collar bone broken, body bruised.
97	"	Edgar Doss....	6-3,	'03	American.	sev yrs	40	Miner	Fall of slate	Leg broken and head bruised.
98	"	John Weaver....	6-19,	'03	American.	15 yrs.	40	Miner	Fall of slate	Skull fractured, head, face cut.
99	"	Adrew Workman	6-25,	'03	American.	5 yrs.	18	Stable boss.	Lump of coal on incline	Cut on calf of leg.
100	"	K. & H. No. 101	6-25,	'03	American.	6 yrs.	19	Driver	Mine car (inside)	Leg cut and bruised.
101	"	F. L. Goodson....	6-25,	'03	American.	40 yrs.	37	Mine boss.	Water-box (outside)	Leg amputated.
102	"	K. & H. No. 106	12-23,	'02	Welsh....				Mine car (inside)	
103	"	Albert Stone....								
104	"	R. Jenkins, Sr....								
105	"	Hartford								

NON-FATAL ACCIDENTS FOR THE YEAR ENDING JUNE 30, 1903—Continued.

COUNTY.	NAME OF MINE.	Name of Person Injured.	Date of Accident.	Nationality.	Length of Experience.	Age.	Occupation.	Nature of Accident.	Injuries Sustained.
Fayette ..	Rush Run.	Peter Hutchinson	8-22, '02	American.	Svl. mo 28	28	Mach. helper.	Fall of coal.	Leg broken above ankle.
"	Red Ash.	Lee Leg.	8-25, '02	American.	2 wks. 19	19	Driver	Mine cars (inside)	Leg broken.
"	Red No. 5.	A. R. White.	9-19, '02	American.	7 yrs. 26	26	Miner	Fall of slate.	Back, hip and hand bruised.
"	Red No. 5.	Wm. Cash.	9-19, '02	American.	2 mos. 21	21	Miner	Fall of slate.	Arm broken, back, hip and hand bruised.
"	Blume.	James Messie.	10-14, '02	American.	25 yrs. 45	45	Miner	Fall of slate.	Back and hips injured.
"	K. & H. No. 115	Ernest Rothen.	10-20, '02	Negro.	1 year. 28	28	Driver	Mine cars (inside)	Four ribs broken and side mashed.
"	Whipple.	Aug. Westershoff.	10-20, '02	German.	1 wks. 28	28	Laborer	Explosion of gas.	Burned.
"	Dunloop No. 1	J. P. Rodgers.	10-30, '02	American.	12 yrs. 28	28	Miner	Fall of coal.	Spine, head and scalp injured.
"	Red Ash.	Wm. Lee.	10-31, '02	American.	Svl yrs 21	21	Driver	Mine cars (inside)	Leg broken.
"	K. & H. No. 114	George Reid.	11-1, '02	Negro.	1 year. 27	27	Knuckle man.	Timbers fell	One finger taken off and one crushed.
"	K. & H. No. 114	John Crouch.	11-1, '02	American.	3 years 48	48	Drum runner.	Timbers fell	Leg and shoulder bruised.
"	K. & H. No. 111	J. A. Parish.	11-8, '02	American.	1 mo. 34	34	Explosion of gas.	Struck by lever (outside).	Right side of face cut.
"	K. & H. No. 112	Jesse Kelley.	11-21, '02	American.	1 mo. 45	45	Slate shooting	Fall of slate.	Leg cut and bruised.
"	Rush Run.	Frank Westcock.	12-3, '02	Hungarian.	Many yrs 40	40	Miner	Explosion of gas.	Burned.
"	Nova Scotia.	Martin Fizi.	12-10, '02	Hungarian.	3 years 31	31	Miner	Fall of slate.	Spine fractured.
"	Blume.	O. L. McClelland.	12-17, '02	Negro.	3 to 4 yrs 29	29	Miner	Fall of slate.	Leg broken above ankle.
"	Crescent No. 5	Rel Johnson.	12-22, '02	Negro.	4 years 21	21	Driver	Fall of coal.	Bruised in back.
"	Michigan.	W. Frank Hurt.	1-16, '03	American.	2 yrs 17	17	Slate shooter.	Explosion of powder.	Hands and face burned.
"	Boomer No. 2.	Moses Wade.	1-23, '03	Negro.	2 years 24	24	Coal loader.	Explosion of powder s ke	Head, face and hands burned.
"	Mecca.	Geo. Bayes.	2-24, '03	American.	5 or 6 yrs 24	24	Miner & Driver	Fall of slate.	Back and stomach injured, cut over eye.
"	Mecca.	T. F. Shears.	2-24, '03	American.	10 yrs 30	30	Track layer.	Fall of slate	Cut over eye.
"	Edg w tr No 3	Chris Woods.	3-6, '03	Negro.	6 mos. 25	25	Mach. loader.	Fall of slate	Back sprained.
"	California.	Marshall Hopkins.	3-7, '03	Negro.	25 yrs 25	25	Driver	Mine cars (inside)	Leg broken.
"	Boomer No. 1.	Emery Stowe.	3-7, '03	American.	2 years 14	14	Trapper	Motor (inside)	Foot cut and bruised.
"	Red No. 2.	Frank Selmaire.	3-10, '03	American.	16 yrs 16	16	Miner	Fall of slate.	Leg and arm broken.
"	Boomer No. 3.	Ernest Turner.	3-23, '03	Negro.	years. 25	25	Driver	Mine cars (inside)	Leg broken.
"	Red No. 2.	Charles Walder.	3-27, '03	German.	8 years 32	32	Miner	Fall of slate.	Leg broken.
"	Rush Run.	Eugene Banks.	4-15, '03	Negro.	years 30	30	Laborer	Mine cars (inside)	Ankle broken.
"	K. & H. No. 117	Wm. Gray.	5-15, '03	Negro.	2 mos. 18	18	Driver	Fall of slate	Foot mashed and two toes broken.
"	K. & H. No. 117	Harry Cole.	6-2, '03	American.	3 mos. 15	15	Coal loader	Fall of slate.	Head badly cut.
"	K. & H. No. 112	Harvey Cooper.	6-2, '03	American.	2 years 53	53	Driver	Mine car (inside)	Three ribs broken and thigh dislocated.
"	Prudence.	Charles Johnson.	6-13, '03	American.	10 yrs. 33	33	Miner	Fall of slate.	Back broken.
"	Cliff Top.	R. L. Shawver.	6-17, '03	American.	2 mos. 26	26	Miner	Fall of slate.	Back sprained.

135	McDowell, Pulaski	And. Alexandr.	7-18, '02	Negro.	2 wks.	22	Driver	Tail chain (inside)	Leg broken.
136	"	Philip Yocum	8-6, '02	German.	10 yrs.	31	Miner	Fall of slate.	Muscles of back bruised and sprained.
137	"	R. H. Green	8-13, '02	Negro.	3 years	32	Miner	Blasting coal.	Head, face and hands burned.
138	"	Wm. A. Wilson	8-29, '02	American.	3 years	34	Brakeman	Mine cars (inside)	Right leg injured.
139	"	L. M. Dillard	9-3, '02	Negro.	4 yrs.	40	Miner	Fall of coal.	Head hurt.
140	"	Jeff. McDowell	9-15, '02	American.	sev yrs	22	Miner	Explosion of powder	Body, face, arms and hands burned.
141	"	Wm. Britt	9-15, '02	American.	1 mo.	45	Miner	Explosion of powder	Face and hands burned.
142	"	J. C. Burnett	9-18, '02	American.	10 days	23	Miner	Explosion of powder	Burned over body.
143	"	Albert Layson	9-30, '02	American.	3 years	17	Driver	Fall of slate.	Back sprained.
144	"	Alons Gumbo	10-2, '02	American.	1 mo.	30	Miner	Fall of slate.	Muscles of chest and back bruised.
145	"	Frank Schrommel	10-2, '02	American.	1 mo.	35	Miner	Fall of slate.	Muscles of arm and back strained.
146	"	Thomas Graves	10-9, '02	Negro.	3 mos.	25	Miner	Fall of coal.	Leg broken above ankle.
147	"	James Patterson	10-15, '02	Negro.	2 wks.	17	Trapper	Mine locomotive (inside)	Leg broken.
148	"	Joe Budna	10-27, '02	Hungarian	1 mo.	30	Miner	Fall of coal.	Fracture of leg.
149	"	Elick Epps	12-20, '02	American.	10 yrs.	35	Miner	Fall of slate.	Leg broken.
150	"	James White	1-3, '03	Negro.	8 yrs.	35	Miner	Fall of slate.	Leg broken.
151	"	Walter McGinnis	1-5, '03	American.	6 mos.	30	Brakeman	Mine cars (inside)	Two fingers mashed off.
152	"	W. M. Martin	1-7, '03	American.	7 years	35	Miner	Fall of slate.	Right leg fractured.
153	"	L. B. Dorcas	1-8, '03	American.	2 years	25	Miner	Fall of slate.	Head cut and body bruised.
154	"	Steve Horwan	1-15, '03	Pole	5 mos.	30	Miner	Fall of slate.	Compound fracture of leg.
155	"	John Wade	1-16, '03	Negro	2 mos.	25	Slate man	Fall of slate.	Leg fractured.
156	"	George Pop	1-20, '03	Hungarian	1 year	33	Miner	Fall of slate.	Back hurt.
157	"	H. Berryman	1-28, '03	Negro	6 mos.	35	Miner	Fall of slate.	Ankle injured.
158	"	James Hawsley	2-2, '03	Negro	1 mo.	28	Driver	Kicked by mule (inside)	Jaw bone fractured.
159	"	W. Harston, Jr	2-3, '03	Negro	3 years	24	Slate man	Fall of slate.	Injured in right side.
160	"	Henry Watkins	2-4, '03	American.	12 mos.	32	Miner	Fall of slate.	Fracture of left leg.
161	"	Wm. Muse	2-4, '03	Negro	1 mo.	20	Laborer	Mine cars (inside)	Five ribs crushed. other injuries.
162	"	Robt. Armstead	2-10, '03	Negro	24	Miner	Explosion of powder	Burns.	Burns.
163	"	Eli Wright	2-10, '03	Negro	sev yrs	25	Miner	Explosion of powder	Burns.
164	"	Richard Lockett	2-10, '03	Negro	sev yrs	25	Miner	Explosion of powder	Burns.
165	"	Martin Flake	3-5, '03	American.	4 years	28	Miner	Fall of slate.	Arm cut and 2 ribs fractured.
166	"	Harry Harsten	3-11, '03	Negro	5 years	18	Miner	Fall of coal.	Compound fracture of leg.
167	"	Dock V. Hole	3-16, '03	American.	3 yrs	38	Miner	Fall of slate.	Compound fracture of leg.
168	"	Lewis Brown	3-26, '03	Negro	3 yrs	38	Miner	Fall of slate.	Compound fracture of leg.
169	"	John Malotski	3-26, '03	Negro	9-10 yrs	30	Miner	Fall of slate.	Spine, chest and ankle injured.
170	"	W. C. Powell	3-31, '03	Pole	6-7 yrs.	30	Miner	Fall of slate.	Mashed through hips
171	"	Chas. Scales	4-7, '03	American.	3-4 yrs.	32	Miner	Fall of slate.	Compound fracture of leg
172	"	Mike Vargo	4-14, '03	American.	10 mos.	19	Miner	Fall of slate.	Leg fractured, back and legs bruised.
173	"	Fayette Green	4-22, '03	Hungarian	6 mos.	40	Miner	Fall of slate.	Leg broken.
174	"	Edward Williams	5-11, '03	Negro	3 years	22	Laborer	Lever fell on him (outside)	Hip and knee sprained.
175	"	John Koteles	5-15, '03	Irish	8 years	25	Miner	Fall of slate.	Burns.
176	"	John Ordish	5-15, '03	Irish	2 years	30	Miner	Explosion of powder	Head cut and foot mashed.
177	"	Frank Treppass	6-7, '03	Irish	5 years	30	Miner	Fall of slate.	Scalp cut and shoulder blade hurt.
178	"	Upland No. 1	6-13, '03	Italian	10 yrs.	29	Miner	Fall of slate.	

NON-FATAL ACCIDENTS FOR THE YEAR ENDING JUNE 30, 1903—Continued.

COUNTY.	NAME OF MINE.	Name of Person Injured.	Date of Accident.	Nationality.	Length of Experience.	Age.	Occupation.	Nature of Accident.	Injuries Sustained.
McDowell.	Upland No. 1.	Joseph Cretalia	6-13, '03	Italian	12 mos.	32	Miner	Fall of slate.	Leg and back broken.
"	Bottom Creek.	John J. Waller	6-16, '03	Negro	1½ yrs.	33	Miner	Fall of slate.	Leg broken.
179	"	Robert Tribble	6-18, '03	American.	1 mo.	30	Laborer	Fall of slate.	Foot sprained, leg broken and hip bruised.
180	"	"	"	"	"	"	"	"	"
181	"	Crozer No. 2.	6-24, '03	"	4 years	18	Driver	Mine cars (inside).	Leg broken.
182	Mercer.	Walter Johnston.	8-7, '02	American.	2 years	16	Brakeman	Mine cars (inside).	Shoulder blade and collar bone fractured, spine injured.
183	"	George Elliott	8-7, '02	"	"	"	"	"	"
184	"	Chas. Johnson	1-24, '03	Negro	10 yrs.	35	Miner	Fall of coal.	Mashed across hips.
185	"	J. E. Barlow	3-4, '03	American.	"	33	Miner	Fall of slate.	Leg broken, back, side and foot bruised.
186	"	Sagan're No. 2	4-16, '03	American.	2 mos.	14	Trapper	Set fire to clothes.	Burned on leg.
187	"	Hemlock.	4-23, '03	Negro	8 mos.	14	Laborer	Mine cars (inside).	Leg broken.
188	"	Crane Creek.	4-23, '03	American.	9 mos.	45	Miner	Fall of slate.	Fracture of thigh.
189	"	Caswell.	5-6, '03	American.	18 yrs.	45	Miner	Mine cars (inside).	Foot mashed.
190	"	Pinnacle	5-16, '03	American.	"	50	Miner	Fall of slate.	Ankle fractured, chest and thigh bruised.
Mingo.	Maritime	David E. Walker.	7-9, '02	American.	9 days	19	Laborer	Mine car (inside).	Contusion of shoulder and hip.
191	"	Isaac Bannister	7-30, '02	American.	always	31	Miner	Fall of coal.	Collar bone fractured, otherwise bruised.
192	"	Red Jacket.	8-14, '02	Hungarian	5 years	38	Miner	Fall of coal.	Leg fractured.
193	"	Pete Sharra	8-23, '02	Hungarian	1 year.	32	Miner	Fall of slate.	Leg broken and head cut.
194	"	Cecil Isom	11-13, '02	American.	7 mos.	22	Driver	Mine car (inside).	Both legs and left arm broken.
195	"	Thacker No. 2	12-24, '02	American.	"	"	Laborer	Fall of coal.	Rib fractured.
196	"	Logan.	3-19, '03	American.	2 years	31	Mach. helper.	Mine machine.	Arm injured, necessitating amputation.
197	"	Bob Jenkins	5-27, '03	American.	short t.	40	Back-hand.	Blasting coal.	Bruised.
198	"	J. O. Wilcox	6-2, '03	"	"	23	Laborer.	Fall of coal.	Collar bone fractured and shoulder blade dislocated.
199	"	John Ernest	6-4, '03	"	"	22	"	Fall of slate.	Arm broken.
200	"	Geo. H. Wood	6-30, '03	American.	2 mos.	25	Miner	Fall of slate.	Thigh fractured.
201	Grant.	Wallace Swindell	1-6, '03	American.	10 yrs.	34	Miner	Premature explosion.	One eye put out.
202	"	Wallace Swindell	3-17, '03	American.	"	"	Timberman	Fall of roof rock.	Collar bone broken, hip dislocated.
203	Mineral	Adolph Bosten	7-9, '02	American.	5 years	27	Miner	Fall of coal.	Compound fracture of thigh.
204	"	Hugh M. Dalling	11-6, '02	American.	5 years	41	Miner	Fall of coal.	Leg broken and back sprained.
205	"	W. D. Wilson	3-9, '03	Negro	3 years	51	Miner	Blowmout shot.	Face and hands burned.
206	"	Wm. Wilson	3-9, '03	Negro	1 year.	18	Miner	Blowmout shot.	Face and hands burned.
207	"	J. H. Sheppard	4-30, '03	American.	lif time	28	Miner	Fall of coal.	Arm broken, foot cut, face bruised.

208	Mineral.	Exp.	Garden	5-6, '03	Irish	lifetime	Miner	Fall of coal	Ankle broken.
209	Preston	No. 6.	Joseph Joyce.	7-16, '02	Italian	3 mos.	30 Mach. helper.	Mine car (inside)	Compound fracture of leg.
210	"	Gorman No. 2	Cast. Ciamparella	8-5, '02	Italian	7 years	24 Miner	Fall of slate and coal	Spine dislocated.
211	"	Irona No. 2	Benjamin Loss	9-24, '02	Pole	7 years	24 Miner	Fall of slate.	Compound fracture of leg.
212	"	Gorman No. 2	Joseph Gilhoosky	10-24, '02	American	1½ yrs.	18 Miner	Mine car (inside)	Collar bone broken.
213	"	Victoria	Jerald Philipps	11-1, '02	American	2 years	30 Miner	Fall of coal	Toes mashed.
214	"	Victoria	Henry Riley	2-13, '02	American	2 years	Miner	Fall of coal	Knee hurt.
215	Randolph	No. 1 Coalton.	Cliff B. Hevner	1-7, '03	Italian	2 years	41 Miner	Fall of coal	Thigh broken.
216	"	Weaver No. 1	Ger. dino Gerahino	1-17, '03	American	2 years	20 Driver	Mine cars (inside)	Right foot sprained.
217	"	Weaver No. 1	Chas. Bennett	3-11, '03	Pole	13 yrs.	45 Miner	Fall of slate.	Leg fractured.
218	"	Weaver No. 2	John Lavandasky	3-30, '03	American	6 mos.	14 Lab-ret.	Mine car (inside)	Ankle sprained.
219	"	Weaver No. 2	Lonnie Brown	5-5, '03	American	4 years	18 Miner	Mine car (inside)	Third finger amputated.
220	Taylor	T. B. Davis	Amrose Moore	10-19, '02	Negro	5 years	40 Miner	Fell from tippie	Leg broken and head cut.
221	"	No. 41	Thomas Jones	2-2, '03	Slav	5 years	27 Miner	Premature explosion	Badly burned.
222	Tucker	No. 37 (Coke-ton No. 3)	Mike Totisie	7-11, '02	American	sev yrs	40 Miner	Fall of slate	Mashed.
223	"	No. 35 (Coke-ton No. 1)	John Wade	2-6, '03	Italian	19	Miner	Fall of slate	Leg broken, hip dislocated.
			Natch Watroe						

FATAL ACCIDENTS FOR THE YEAR ENDING JUNE 30, 1903.

Harrison County.—July 21, 1902, died July 26, 1902. Wm. Gowers, Jr., Columbia Mine, was employed as a driver and he as well as all of the men had been forbidden to enter or leave the mine by way of the slope or main heading but to use the man-way. On the day of the accident Gowers was coming out the slope when a link on the end of swivel attached to the tail rope on incline broke, letting eleven loaded mine cars run from top of incline into the mine catching him. His death was caused by disobedience to orders.

Aug. 19, 1902. Paul Dunkoe, Pinnickinnick No. 1 Mine, was in No. 19 room shoveling the machine cuttings and while in the act of doing this a piece of slate fell, crushing his head.

Sept. 19, 1902. Simon Trendafil, Pinnickinnick No. 1 Mine, got on the rear end of front trip of loaded cars that were being dropped out on main track by the tippie-man, and which were being closely followed by another section of loads which overtook the front trip, striking them and jarring the boy off. He fell to the track and four cars of coal passed over his right arm and body.

December 14, 1902. died December 15. Thomas Clara, Ocean Mine, was shoveling coal into a car when about a ton and a half of soap-stone fell, a part of it striking him on the back. He had been warned to put up timbers with cross-bars but had neglected to do so.

Jan. 22, 1903. Grande Busario, Viropa Mine, had made a center shot in No. 20 room, but coal failed to fall. He took a pick and commenced to shear the center when coal gave way and caught him.

Feb. 2, 1903. Charles Jascom, Farnum Mine, was making an undermining and was in the act of cutting deeper when it gave way, crushing him. There was a clay seam about 2-3 way in pillar. He did not sprag the loose end or leave a block of solid coal under the loose end.

Feb. 10, 1903. Stanislaw Majewski, Phoenix Mine, was taking down rock over head with other men. They fired three holes at once and without proper examination went to work to clean up when a large rock fell catching Majewski, breaking his neck.

March 13, 1903. Frank Handshumaker, Lynch Mine, was hauling coal out of room and had hitched his mule to the car. He had just stepped on the front of the car when a pot of slate fell crushing his head against the side of the car.

March 17, 1903. Geoort Daoch, Harbert Mine, was walking down heading and stepped from track to get out of the way of car, and was caught between mine car and rib. If he had stepped on the other side of the track he would not have been caught as there was a 4-foot passing space.

April 2, 1903. John Shefcheck and Duncan Bunnell, Pinnickinnick No. 1 Mine, were drawing the rib on the right side of room. They were

mining the side of a pillar which had bursted loose and while undermining this loose coal it fell, without warning, crushing them.

May 5, 1903, died May 6. John Miholski, Fall Run Mine, was trying to loosen coal which he had shot but which had not fallen, when he was caught by a fall of coal and slate. This coal and slate should have been taken down before going under same.

May 21, 1903, died May 25th. Andy Jurick, Pooz Mine, was endeavoring to fan a small quantity of gas from the face of the main heading and in so doing he brushed the gas to an open light, causing an explosion, which burned him so severely that he died four days later. Jurick was Mine Boss and should have instructed the men with lights to stay at a safe distance.

May 26, 1903. Mike Tinal, Pooz Mine, had put in a shot in the left hand rib which failed to bring the coal down. He started to shear the coal in the center of the room in order to let down the coal that he had shot when it fell crushing him.

June 11, 1903. Irvin Barker, Viropa Mine, was loading coal in his room after the first shot, when the loose coal and slate fell out, crushing him against mine car.

Marion County.—July 22, 1902. John Lajkun, Montana Mine, had fired a shot in a cross-cut and started to shoveling without sounding the roof, when a pot of slate fell, crushing him.

Sept. 9, 1902. Biogio Pignauelli, Chiefton Mine, was squaring up his place when a large piece of slate gave way crushing him to the floor. He failed to examine the roof, taking it for granted that it was safe.

Sept. 22, 1902. Moses Williams, Karl Koch, August Ammiel, Liborio Tarquinia, John Keating and Robert H. Hoover, Stafford Shaft Mine, were killed by an explosion of gas. A full description of this accident will be found in the preceding part of this chapter.

Sept. 27, 1902. Asa H. Hall, New England Mine, was helping to raise a smokestack when the rope broke and the stack fell on him. He had been warned not to go under the stack.

Nov. 5, 1902. Wendall Ketchler, Middleton Mine, was engaged cutting a break-through, when a piece of loose slate fell. The Mine Boss had ordered him to take this slate down.

Dec. 4, 1902. Charles Preston, Federal Shaft No. 1 Mine, fell in front of mine car while endeavoring to set brake and was crushed to death by the car.

Dec. 12, 1902. John Paulick, New England Mine, was shoveling coal at the face of his room when a large kettle bottom fell crushing him.

Jan. 26, 1903, died Jan. 29th. John Zubric, Montana Mine, was mining on a pillar which had a powder crack running back in the coal, caused from a shot when the room was driven. When Zubric reached the powder crack the coal started to falling and crushed him before he could get out of the way.

March 3, 1903. A. G. Ricer, Monongah No. 2 Mine, was struck by a fall of draw slate. He knew the roof was in bad condition but was waiting until he had finished loading a car of coal to take down the slate.

March 27, 1903. Ignatus Lapinsky, West Fairmont Shaft, was caught by a fall of slate. He was sounding the slate with his pick when it fell.

April 10, 1903. Joseph Orban, Montana Mine, was helping two other men move a loaded car in order to take down slate and while doing so the slate fell and brought down three props with it, crushing Orban.

May 19, 1903. Joseph Cowan, Montana Mine, was working under a piece of draw slate which he and his partner had tried to take down with bars when the slate fell without warning, crushing him. A prop should have been put under this slate.

Ohio County.—Jan. 21, 1903. John Knox, Elm Grove Shaft Mine, was killed by a fall of stone.

April 25, 1903. John Muir, Richland Mine, was run over by a mine car. He was found lying between the wheels, one wheel having passed entirely over his body. How he fell under the car is a matter of conjecture as he was an experienced driver.

Kanawha County.—Aug. 6, 1902. Kenry W. Adkins, Winifrede South, was working in his room when he was crushed by a fall of coal.

Dec. 2, 1902. Luther Sayers, Sycamore Mine, and another miner had put in three shots, two of which fired and the third failed to do so. Sayers returned to put in another squib and just as he got within three feet of the face the shot exploded.

Dec. 5, 1902, died Dec. 15th. Simon Petry, Winifrede North, was struck in the back by a piece of slate while stooping over to repair track. Had he been standing up straight he probably would not have been hurt.

March 28, 1903, died March 29th. Thomas Wade, Paint Creek Mine, was a machine runner and was backing his machine out of a room. He had the machine side-jacked with a bar and the point got in the gear wheel of the motor box making the other end fly around, striking him in the side producing injuries from the effects of which he died the next day.

May 18, 1903. Eliam F. Hanna, K. & H. No. 105 Mine, was working on the tippie when it collapsed. This was caused by an engine colliding with a box car under the tippie and knocking out some of the bents.

June 5, 1903. Charles Vance, K. & H. No. 108 West Mine, was killed by a fall of draw slate. No one knows exactly how the accident happened, as he was found dead under the slate. He had been requested to set props that day, but evidently failed to do so.

Putnam County.—Dec. 5, 1902. Evan Legg, Plymouth Mine, was eating his lunch and raised up and struck his arm against the live electric wire.

May 15, 1903. James Rowden, Plymouth Mine, was mining under the coal when a piece of slate fell on him, crushing him.

Fayette County.—Aug. 28, 1902. E. Wachisky, Collins No. 1 Mine, had put in a shot which had failed to explode and he went back and touched it with a match and before he could get away it went off in his face.

Sept. 25, 1902. Edward Reese, Sun Mine, was killed by a fall of top coal while in the act of undermining the same.

Oct. 7, 1902. John P. Owens, Whipple Shaft Mine, was crushed by a fall of slate. It was purely an unforeseen accident.

Oct. 10, 1902. W. J. Daniels, Red Ash Mine, was riding up incline in empty car which they had just put on the track. The car was again derailed and turned over, Daniels being caught under the car.

Oct. 31, 1902. G. W. Hodges, Rend No. 1 Mine, was mining on top of the seam in his room and instead of pulling this top coal and slate down kept on mining until the whole thing fell on him.

Nov. 27, 1902. Frank Miller, Elverton or New Caperton Mine, was eating his dinner in one of the rooms immediately in front of where a shot was being put in on the opposite side of the pillar between two rooms which were being broken together. When the shot was fired, contrary to expectations, it broke clear through the pillar, hurling Miller across the room with great force. He had been warned not to go in this room.

Dec. 3, 1902, died Dec. 4, 1902. Lucian Gary, Star Mine, with another man was engaged in shooting coal. There were two shots in ready to be fired and by mutual agreement, Gary was to light the shot on the left side of the room which was immediately in front of the roadway, and the other man was to light the shot on the right side of the room. When the shots were lighted instead of going back down the roadway, Gary ran across the face of the room and attempted to get into a breakthrough on the other side. The shot exploded before he got out of the way.

Dec. 6, 1902. Phelix Brandon, Red Ash Mine, was helping to put a derailed motor on the track, another motor was attached to this motor and when the power was turned on the derailed motor was pulled forward in such a manner as to knock out a post. This caused a large piece of sand rock to fall on Brandon.

Dec. 13, 1902. W. O. Ackley, Rend Mine, was walking along the side of the track on the outside and just as the engine got to him he stepped in front of it, whether to try and get on the engine or not knowing that it was coming is undecided. He had just been employed by this company and was going to work for the first time.

Dec. 19, 1902. Willis Dawson, Great Kanawha Gas No. 2 Mine, was engaged in taking out a pillar when he was struck by a fall of top coal.

Dec. 19, 1902, died Dec. 20th. Lafayette Stewart, Boomer Mine No. 3, was hauling coal to accomodate another miner. He tried to set the brake and jumped off on wrong side of car and the place being so narrow he was crushed between rib and car. He was under the influence of liquor when he left his boarding house and presumably so at the time of the accident.

Jan. 6, 1903. Lovell Davis, Dunloop Mine No. 1, was making a cut in the solid coal under the top coal that had cracked and started to fall. While he was thus engaged all of the top coal came down on him. It was a case of gross negligence on the part of the miner, Davis.

Jan. 15, 1903. John Hill, Prudence Mine, had been filling some cart-ridges from a keg and had spilled some powder on the floor. He had some squibs and lighted one of these to see if it was all right, threw it down on the floor where it ignited the powder that he had spilled, which in turn fired the powder in the keg, burning him so that he died in a short time.

Jan. 19, 1903. Jasper Mulliaux, Rush Run Mine, was riding down the incline on loaded cars, just after the cars had passed the empty cars

coming up the clevis coupling the empty cars broke and the empties ran back down on top of the loaded cars, crushing him fatally. The trip was stopped and he could have jumped off, but he probably did not see that the empties had broken loose.

Jan. 19, 1903. Massie Barker, Rush Run Mine, was coming out of mine with empty car when mule kicked him in the chest directly over the heart, killing him instantly.

Jan. 20, 1903, died Jan. 22nd. John Seget, Collins No. 2 Mine, was at work putting in a cut when he was struck by a kettle bottom, which fell close to the face of the coal.

Jan. 20, 1903, died Feb. 6th. Andrew Seget, Collins Mine No. 2, was working with his brother, John Seget, putting in a cut when he was struck by a kettle bottom which fell close up to the face of the room.

Jan. 31, 1903. Joseph Kaszas, Collins No. 1 Mine, was working in his room when he was buried by a fall of slate. The accident was due to insufficient timbering.

Feb. 18, 1903. J. Bunyon Gibson, Crescent No. 1 Mine, was coming out of mine on his way home and in order to cross a pool of water was walking on top of the rail, when he slipped and fell across a live wire which was used to run the electric machines and which was strung on posts about 19 inches back from the rail and about three feet from the floor.

March 6, 1903. John Johnston, Cliff Top Mine, was working in his room when he was killed by a fall of draw slate. This slate should either have been taken down or timbered.

March 19, 1903. W. D. Cunningham, Turkey Knob Mine, was shoveling coal into a car a kettle bottom fell, striking him on the head and killed him instantly. It was an entirely unforeseen accident, as the place was well timbered.

April 15, 1903. Tom Carter, Collins Mine No. 2, was at work with his brother putting in a cut when a large piece of top coal fell, breaking Tom Carter's neck. They had sounded the top just before putting in cut and everything seemed all right.

April 18, 1903. Lee Green, Ballinger Mine No. 1, slipped accidentally off front end of car and was run over. Accident taking place on mine tram road.

April 22, 1903. G. M. Evans, Stuart Shaft Mine, was struck by a piece of slate, which became detached from the wall of shaft and falling about 40 feet, struck the deceased.

May 16, 1903, died May 17th. Allen Lineon, Rend B. No. 1 Mine, was making an undercut in the middle of seam when the top coal fell on him, crushing him.

May 21, 1903. Otis Comer, Derryhale Mine, was riding in empty car into miners' places when car jumped track, knocking out prop and causing the slate to fall on deceased.

May 28, 1903. Andrew Koval, Collins No. 2 Mine, was walking into work on main entry and met loaded trip coming out, although he had plenty of time and room to step out of way he did not seem to hear or see the approach of trip and was run down.

June 2, 1903. James Williams, Prudence Mine, was killed by a fall of

slate. The place was timbered to within 6 feet of the face at all points. It is supposed he was trying to take down a piece of loose slate when it fell on him.

June 8, 1903. Frank Bolen, Rend No. 2, Mine, was mining at face of coal and was caught by a fall of draw slate.

June 10, 1903. James Souder, Gauley Mountain Mine, was employed as assistant on coal train operated from the different openings to what is known as the tunnel where a rope haulage is used to pull the trains through. Souder was in the act of uncoupling a car while a running switch was being made for the purpose of sorting the cars, when he lost his balance, falling directly in front of the moving train which passed over him.

June 12, 1903. Edgar Lacy, Scarbro Mine, was working for a couple of men as machine loader and at the time was shoveling coal when slate about 18 inches thick and 10 feet square fell, catching him underneath.

June 19, 1903. Paul Kantesh and Joe Yezo, Collins No. 2 Mine, were working with several other men taking down slate in order to raise the roadway to even up the grade. The entry at the point where this was being done was heavily timbered and the slate was hanging on these timbers in large long pieces. Several sets of timbers had been taken out and the slate immediately above the timbers had already fallen. The Mine Boss and the men working here carefully examined the slate above that which had already fallen and declared it safe. They then proceeded to blast with dynamite the large pieces of slate on the floor. The Mine Boss and these two men (Kantesh and Yezo) got on top of this broken slate and commenced to clear the top lumps away when a large piece of slate fell, killing Kantesh and Yezo instantly.

June 19, 1903. Leon Thomas, Ballinger No. 1 Mine, was coming around tramroad from his work. He was sitting on side of car with feet hanging over. In lifting his feet to clear side of road he overbalanced himself and fell between cars and was run over.

June 25, 1903. Floyd Turner, Greenwood Mine, was reaching under some loose slate with his shovel to get the loose coal when the slate fell and caught him on the back.

Raleigh County.—Oct. 1, 1902. Henry Whorley, Stonewall No. 3, had remained in his room although notified when locomotive would leave on last trip for home. When he did not appear at supper the Mine Foreman and two men went to look for him. He was found at face of his room covered with slate, and dead. He had presumably returned to fire a shot and was caught while preparing for same.

Oct. 10, 1902. Barney Blackwell, Wright No. 3 Mine, was mining a cut when the slate fell on him. The piece of slate was such that it could not have been timbered.

Dec. 17, 1902. James Stover, Stonewall No. 3 Mine, was engaged in wedging down draw slate in entry and was stooping forward to pick up an ax when the slate fell on him.

Dec. 18, 1902. Milas Kincaid, Royal Mine, was riding a mule home from work and was either thrown or fell, one foot catching in the harness and he was dragged about half a mile. He had been warned not to ride the mule.

McDowell County.—July 1, 1902. Edgar Board, Keystone Mine, was pulling an empty car into room when kettle bottom fell on him. The loose slate had been timbered and this piece fell out between two of the timbers.

July 23, 1902. J. R. Hardy, Algoma Mine, was putting in an undercut when the coal fell on him. Although the coal was working some he had just sounded it with his pick and thought it safe.

Sept. 15, 1902. Clem Jones, Phil Jones, Henry Warren, Henry Clark, Henry Woody, Edward Gravely, Ennis Stoball, Edward Calloway, Alex. Crider, Payton Crider, Sam Waller, James Lester, John Roike, Charles Mullins, Fount Saunders, James H. Turner and Jesse Wade, Algoma Mine, were killed by an explosion of gas. A full description will be found in the preceding part of this chapter.

Sept. 23, 1902. Posey T. Hill, Roanoke Mine, had just gone in the mine as back-hand to learn mining. A cut had been made the evening before and left to stand over night. The morning of the accident began cutting deeper. The coal had evidently worked loose and just as the cut was made deep enough a piece of coal fell on him.

Oct. 6, 1902. Joshua Toler, Peerless Mine, was walking into room No. 3 on 8 1-2 entry when a piece of slate fell on him, killing him instantly.

Oct. 8, 1902. George Gebe, Algoma Mine, started to make a cut in the break-through and was killed by a fall of slate. He had been told not to make this cut but to work in his own room.

Oct. 21, 1902. Richard Dabney, Turkey Gap Mine, was working with two other men and had fired a shot about fifteen minutes before the accident. They examined the roof and thinking it was safe went to work to load the coal when a piece of slate fell, killing Dabney.

Oct. 23, 1902. Chas. Sperry, McDowell Mine, was killed instantly by a large piece of slate falling on him.

Oct. 29, 1902. Florian Corzel, Peerless Mine, was working for another miner and they had put in a cut and shot it but the coal did not fall and Corzel went under it digging again and the cut fell on him.

Nov. 10, 1902. John Banks, Algoma Mine, jumped or was thrown from a trip of loaded cars in coming from the mine and was crushed between car and rib. He was riding on trip contrary to rules.

Dec. 11, 1902. Wilson Raleigh, Pulaski Mine, was caught between cars and rib. There was a collision of a loaded trip with an empty trip, and the cars were thrown over against the rib.

Dec. 11, 1902. J. M. Carpenter, Powhatan Mine, and "butty" had put in a cut and shot it but the shot failed to throw the coal down. They then undertook to mine again on the cut when the coal gave way and fell on both, killing Carpenter and slightly injuring the man working with him.

Dec. 19, 1902. George Perkins, Powhatan Mine, was going in with an empty car. A piece of slate fell from the roof and caught him on the end of the car. The roof was supposed to be safe.

Jan. 3, 1903. James Philpott and Ben Gravely, Empire Mine, were killed by a fall of slate.

Jan. 16, 1903. Eugene Clark, Ashland Mine, was not employed by the Coal Company but had gone in the mine to see a contractor. While he

and the driver were riding out of the mine on a loaded car his head struck a cross header for holding up the slate, killing him.

Jan. 16, 1903. Larkins Jones & John Stokes, Peerless Mine, were employed as slate men and were cleaning up slate in room No. 51. They examined the roof thoroughly before starting to work and pronounced it safe. After working under same for sometime three pieces of slate gave way, killing the above and injuring one other.

Jan. 23, 1903. Thomas Marrs, Twin Branch Mine, was working in room No. 9 the day before the accident and the Mine Boss advised him to take down the loose slate. He pulled down about six inches and supposed the roof was safe. The next morning, the 23rd, he had commenced to back up his cut getting ready to shoot his coal when the slate fell.

Feb. 24, 1903, died Feb. 25th. John Roup, Bottom Creek Mine, was working as a laborer for a miner and had just finished loading a car when a piece of slate fell close up to a prop on the entry at a slate pocket opening where they were working.

Feb. 24, 1903. John Silodeger, Shawnee Mine, was alone at the time of the accident. He had evidently fired the heaving hole and started to make a cut when the coal fell on him.

May 4, 1903. Joe Haley, Pulaski Mine, had fired a shot and there was some loose coal hanging at the face. Instead of pulling it down with his pick he attempted to put his undercut in deeper and shoot it down when the loose coal fell and caught him.

May 18, 1903. J. C. Whitlock, Roanoke Mine, was killed by a fall of slate.

May 21, 1903. John Graves, Shawnee Mine, was dropping out loaded gondola from tipple, the car got beyond his control and he went to jump off on coke yard when he slipped and fell under the car.

May 23, 1903, died May 24th. James Milton, Elk Ridge Mine, was riding in the cab of the engine which was coming out of the mine with a trip of cars. The engine gave a sudden lurch and he fell out of the cab and the engine ran over him.

May 27, 1903. Wm. Williamson, Empire Mine, contrary to orders had left his work on tipple and walked up track and was run over by incoming car. No one saw him until front car wheel had passed over him.

May 27, 1903. Jacob Johnson, died May 30th, and Charles Nelson, died June 2nd, Short Creek Mine, fired a shot and failed to move their powder to a safe distance from where they were firing a shot and it caught fire and exploded.

May 28, 1903, died June 1. Frank Putlavish, Turkey Gap Mine, was struck by slate which he neglected to take down. Carelessness pure and simple was the cause of the accident.

June 11, 1903. Sam Wray, Algoma Mine, started with an empty and going down the hill he used the brake and when he released it he failed to put it back in the right place and it caught a prop and pulled it down. This allowed the slate to fall on him.

June 18, 1903. Harry Fisher, Bottom Creek Mine, with a number of

others were cleaning up and loadinkg slate in a new haulway and were making room for props when a large piece of black slate, which was considered safe, and examined only a very short time before, fell with little warning and caught him.

June 19, 1903. Wm. Heath, Keystone Mine, was supposed to be asleep at his door and the engine ran through it. Engineer stopped about fifteen feet from door and pulled him out from under the engine.

Mercer County.—Sept. 22, 1902. R. L. Roberts, Booth-Bowen, Mine, shot a cut and the coal hung, went under one side of cut immediately after making shot and the coal fell on him.

Nov. 17, 1902. Bud Warwick, Pinnacle South Mine, had been told to take down draw slate, which he failed to do, and it fell on him. The accident was due entirely to negligence.

November. 30, 1902. John Hospota, Coaldale Mine, was cleaning up a fall of slate when a piece fell without warning, catching him. The roof had been examined and was considered safe.

Dec. 11, 1902. H. H. Bowman, Pinnacle Mine, was working with an experienced miner, who had made a cartridge to fire a blast. Some powder was spilled on the ground when a spark from Bowman's lamp set fire to the powder causing it to explode.

Dec. 17, 1902. Walter Scales, Buckeye Mine, was killed by a fall of draw slate.

Jan. 26, 1903. J. L. Martin, Sagamore Mine, had just commenced to mine the coal when a piece of draw slate fell on him. The piece was hanging in the corner at the head of his entry and he was aware that it was not safe, having spoken of it to a man working with him, nevertheless he went under it to mine.

Feb. 6, 1903. Simon Sinal, Buckeye Mine, was killed by a fall of slate.

Mingo County.—Jan. 7, 1903. Virgil Clay, Lick Fork Mine, was working with two other men. They were butting off a pillar near the outcrop. They had just fired a shot. Clay picked up a pick and went to the face and commenced to pull some coal down when a piece of slate fell and caught him. He had sounded the slate before it fell and said that it was unsafe.

Jan. 22, 1903. William Sanson, Grapevine Mine, was working on first left entry in room No. 15 when he was killed by a fall of slate. The slate was known to have been dangerous from seven to ten days.

March 27, 1903. Wm. Mullett, Rutherford Mine, had been advised by the Mine Foreman to set some props as soon as he finished making a cut which he failed to do and was killed by a fall of slate.

June 18, 1903. Eldridge Hutchinson, Camp Branch Mine, was working with his son and was at the time of the accident picking down coal on the left side of room when top gave way about three feet behind him and he must have jumped out of the way of it and as he did so it caught his head.

Barbour County.—August. 29 1902. Nils Pierson, Laurel Creek Mine, was caught by a fall of breast coal while mining. The evening before he had fired a shot which loosened a slab of about 2,000 pounds. This did not fall and when he got down and cut to a mud slip in back this piece fell on his head.

Dec. 3, 1902. Anthony Balada, Century Shaft Mine No. 1, was working on a pillar where he fired a shot which knocked down some posts. He did not give the smoke time to clear away to see the condition of the place. The slate would not have killed him if he had not fallen on the end of the rail which entered his side.

Feb. 5, 1903, died Feb. 6. August Hack, Valley Mine, was acting driver and was driving from room onto heading. He thought he passed clear of the room and leaned out to the left of his car and was caught between the coal and the car.

Grant County.—Aug. 5, 1902. Archie Jenkins, Henry Shaft No. 22, was at upper seam and asked footman to get cage and while the footman was signalling for cage, he opened the safety cage gate and stepped into the open shaft, thereby falling a distance of 205 feet. It was evidently a loss of presence of mind on his part.

Aug. 7, 1902. Adam Bernights, Henry Shaft No. 22, was caught by a fall of draw slate while in the act of loading a car. Draw slate was seemingly all right twenty minutes before, after shooting, and deceased said it was all right when Mine Boss was in the entry at that time.

March 17, 1903. Patrick Kealey, Henry Shaft No. 33, was making ready for a set of timbers after blasting roof, when a large piece of roof rock fell on him.

Mineral County.—April 11, 1903. Troxwell Liller, Windom No. 8 Mine, was taking out a stump in room No. 7, stayed too long and was caught under fall.

Preston County.—March 4, 1903., died March 5. George Patton, Irona No. 2 Mine, was caught by a fall of bone coal in neck of room on 2nd entry. He walked home after the accident and died the next day.

April 28, 1903. George W. Hummel, South Side or Mine No. 2 and 3, was killed by a fall of roof coal. He was loading a car and the place was well posted under the solid sandstone roof, but had neglected to take down the roof or bone coal which was very loose.

June 10, 1903. George Sapp, South Side or Mine Nos. 2 and 3, was sitting on top of the water car and was caught by low roof while the car was in motion. He was looking for the low place which he knew very well, but it caught him unexpectedly.

Taylor County.—Jan. 7, 1903. James Comer, Rosemont Mine, was drawing a pillar and went under top coal that extended back 6 or 7 feet to mine, when coal fell on him.

Tucker County.—July 25, 1902. Dominie Rublr, Douglas No. 3 Mine, was drawing a pillar when coal fell on him.

Sept. 18, 1902. M. C. Benford, Coketon No. 3 or Mine No. 37, was timbering slate when same gave way falling upon him and killing him.

Oct. 1, 1902. John Nazelrod, Thomas No. 3 or Mine No. 25, was running a car off second left heading and at switch on straight heading collided with another driver's horse. Collision knocked out a prop and slate fell on him.

Oct. 14, 1902. Sullivan Valaros, Thomas Drift or Mine No. 23, was mining when the draw slate fell on him, crushing him between it and the wooden rails.

Jan. 8, 1903. Tony Di John, Coketon No. 2 or Mine No. 36, was working in room No. 5, 2nd butt entry, when he was caught by a fall of slate.

Feb. 18, 1903. Joseph Rigoteel, Coketon No. 1 or Mine No. 35, was caught between car and prop. On 1st right heading switch horse turned out, pulled car off track catching Rigoteel.

May 14, 1903. Arthur Luzader, Coketon No. 3 or Mine No. 37, was in 2nd butt of Davis heading, when car jumped track and knocked down timber which let slate come down upon him.

May 15, 1903. Casmer Smigle, Douglas No. 1 Mine, was caught by a fall of slate.

CONDITION OF THE MINES.

MINE INSEPECTORS.

James W. Paul, Chief Mine Inspector, Charleston.

FIRST DISTRICT.

Isaac M. Kelley, Inspector, Clarksburg.

SECOND DISTRICT.

Earl A. Henry, Inspector, Clifton.

THIRD DISTRICT.

Edward Pinkney, Inspector, Montgomery.

FOURTH DISTRICT.

Samuel S. Cooper, Inspector, Keystone.

FIFTH DISTRICT.

Jerry Westlake, Inspector, Elm Grove.

MINE INSPECTION DISTRICTS.

FIRST DISTRICT.

County of Braxton, *Brooke*, *Doddridge*, *Hancock*, *Harrison*, *Lewis*, *Marion*, *Marshall*, *Monongalia*, *Ohio*, *Pleasants*, *Ritchie*, *Tyler*, *Upshur*, *Webster* and *Wetzel*.

SECOND DISTRICT.

Counties of Cabell, Calhoun, Clay, Gilmer, Jackson, *Kanawha*, *Lincoln*, *Mason*, *Putnam*. Roane, Wirt, Wood and *Fayette* in part.

THIRD DISTRICT.

Counties of *Fayette*, in part, Greenbrier, Monroe, *Nicholas*, Pocahontas, *Raleigh* and Summers.

FOURTH DISTRICT.

Counties of Boone, *Logan*, *Mercer*, *Mingo*, *McDowell*, Wayne and Wyoming.

FIFTH DISTRICT.

Counties of *Barbour*, Berkeley, *Grant*, Hardy, Hampshire, Jefferson, *Mineral*, Morgan, Pendleton, *Preston*, *Randolph*, *Taylor* and *Tucker*.

By reason of the large number of mines in the First and Third Districts the Inspector of the Fifth District has been detailed to inspect the mines in the Counties of Brooke, Hancock, Ohio, and Marshall, and the Second District Inspector has been detailed to inspect the mines north of the Kanawha and west of the Gauley Rivers in Fayette County.

This plan has been in effect since July 1, 1901.

Italicized counties embrace operating coal mines.

FIRST DISTRICT.

OFFICE OF THE FIRST DISTRICT MINE INSPECTOR,

CLARKSBURG, W. VA., Aug. 18, 1903.

HON. JAMES W. PAUL,
Chief Mine Inspector,
Charleston, W. Va.,

SIR:—In compliance with the Statute I have the honor to submit my report as Mine Inspector of the First District of West Virginia. for the year ending June 30th, 1903.

During the year I have made 208 inspections and investigated in person 34 accidents. It being my rule to investigate in person all fatal accidents and also those of the non-fatal accidents of a serious character.

Out of a total of 100 accidents in this District for the year, 32 were fatal, and in these cases of fatality or serious injury, I regret to say, that in at least 80 per cent. of the cases the cause was neglect in timbering or making safe the individual working places of the mine.

There are at this time in the District 73 mines, being an increase of 18 mines over the preceding year. Of this total all are now producing coal except the Fulmer Mines at Morgantown, and the Herald and Pitcairn Mines at Clarksburg. In spite of the increase in the number of mines there has not been as great a tonnage of coal mined and shipped from this District as was last year. The main cause for this has been the scarcity of cars, and the inability of the railroads to handle the output. At this writing the car supply seems to have improved and the output of the District seems to be increasing.

As a rule the mines of the district are in a very satisfactory condition and show a steady improvement in equipment. New tipples have been built; electric and compressed air mining machines have been installed in a number of the mines heretofore worked solely by pick; new and up to date machinery and electric motors have taken the place of mules; large fans have taken the place of smaller fans and furnaces, improving the standard of ventilation throughout the region; 245 additional miners' houses of comfortable character; four larger store rooms and offices and four large barns have been built during the year.

It affords me special pleasure to report that the relations between the operators of this District and their employes have been harmonious throughout the year. The men are well housed and properly paid, and so far as I can learn there is no dissatisfaction among them of any sort, nor could the business of coal mining be carried on with less friction between employers and employes. The miners are for the most part, sober, industrious and law-abiding and the instances of lawlessness are exceptional.

While, as I have stated, the general ventilation throughout the District is good, there is one matter to which attention should be called and as

to which I think legislation is in order. The system which I condemn is the turning of rooms off both headings and return air courses. Outside of the possibility of gas being found in all mines, we know that it will be but a short time until coal is mined from slopes and shafts below water level where gas is always found in more or less degrees. I believe that the system referred to endangers the mining property and the lives of all miners and employes, and should be discontinued in all mines of a gaseous nature and be forbidden by express statute. The following reasons against it are apparent:

1. It prevents the proper ventilation of each heading on account of the door or doors between the heading and aircourse which must necessarily be open a great part of the time in order to haul the coal out.

2. All the gases thrown off from the working places on the intake heading are passed along to all of the working places on the return heading.

3. When ever any of the working places on either the intake or return air headings are broken through (as must often be the case) to the working places coming to meet them from the headings on their right or left, the air current is broken at that point and at least two districts of the mine, being those at the end of the headings, beyond the break are robbed of ventilation. This can only be prevented by leaving a strip of coal the entire length of these headings sixty or seventy-five feet wide between the rooms working from each heading.

4. One-half of this coal must be worked to the dip which means wet work and an up hill haul.

I would also recommend the passage of a law prohibiting miners and employes from riding in the mine cars in mines where the hauling is done by electric motors. Numerous accidents result from this practice. Among other dangers, I need only suggest that arising from the fact that as our present mining laws require each miner to carry into the mines only such powder as will do for one shift, and nearly all of the miners thus carry powder into the mines each day, it is quite possible that when the cars are going in with thirty to a hundred miners aboard an accident might occur to the haulage and the powder become ignited by an electric spark and the loss of life and property be too frightful to contemplate.

In addition to what I said in my last annual report for the year 1902, as to the enactment of a law in this State requiring mine superintendents, mine bosses, and fire bosses to pass a technical examination before being allowed to act in such capacity, I still think such legislation unnecessary and uncalled for and believe it would do more harm to the mining industry of the State than appears upon a surface view of the question. In this particular I think we should *let well enough alone*.

For a more detailed and statistical report I can only refer you to the reports forwarded to your office by me from time to time in regular course.

In conclusion I am glad to say that I have met with cordial co-operation and assistance in the performance of my official duties from all with

whom I have been thrown in contact, and am especially grateful to yourself for the many kindnesses received at your hands.

Yours very truly,

I. M. KELLEY,

Mine Inspector, 1st Dis. W. Va.

GENERAL SUMMARY OF THE FIRST DISTRICT, FOR THE
YEAR ENDING JUNE 30, 1903.

COUNTY.	EMPLOYES.										PRODUCTION.				
	No. of Mine Openings.	Total No. of Inspections Made.	No. of Written Reports Made.	Inside.					Outside.			No. of Men Killed.	Coal. (Tons of 2,240 lbs.).	Coke, (Tons of 2,000 lbs.).	
				Pick Miners.	Machine Miners.	Mach. Runners and Helpers.	Laborers.	Total.	Laborers.	Coke Workers.	Total.				
															Grand Total.
Brooke.....	4	12	* 9	53	.....	16	69	9	.....	9	78	.....	24,266	.....
Hancock.....	12	.....	* 7	29	45	8	16	98	24	.....	24	122	70,495	.....
Harrison.....	45	135	508	846	197	526	2,077	454	90	544	2,621	15	2,108,336	62,382	
Marion.....	24	77	915	590	220	672	2,397	519	277	796	3,193	17	2,668,914	282,924	
Monongalia..	5	12	77	60	13	39	189	73	47	120	309	.....	148,074	30,509
Marshall.....	5	.....	* 19	44	250	48	74	416	54	.....	54	470	279,276	.....
Ohio.....	5	.....	* 20	153	.....	34	187	19	.....	19	206	2	129,888	.....
Totals....	92	208	279	1,779	1,791	486	1,377	5,433	1,152	414	1,566	6,999	34	5,429,249	375,815

* In the Counties of Brooke, Hancock, Marshall and Ohio the inspections were made by Mr. Jerry Westlake, Mine Inspector of the 5th District.

CONDITION OF THE MINES IN THE FIRST MINING DISTRICT.

I. M. KELLEY, INSPECTOR.

(Note—Mines Nos. 1 to 6 inclusive, and 78 to 89 inclusive, were inspected and reported upon by Mr. Westlake, the inspector of the Fifth Mining District.)

BROOKE COUNTY.

PANHANDLE COAL CO.

No. 1. *Blanche Mine*.—This mine is located on the P. C. C. & St. L. R. R., about six miles from the Ohio river. It is a drift opening in the No. 6 coal seam and is nearly worked out. Are now robbing the pillars preparatory to its final abandonment. Ventilation is produced by furnace, which gives satisfactory results. Drainage throughout the mine is good. A fair quantity of miner's oil is found to be used at this mine. All suggestions offered have been adopted. During the years there were made at this mine three inspections and three certificates issued.

ANDREW SWARTZ, Supt. & Mine Boss.

WIOTA COAL CO.

No. 2. *Gilchrist Mine*.—This mine is located on the P. C. C. & St. L. R. R., and Ohio river, one mile north of the village of Lazearville. It is a drift opening in the No. 8 or Pittsburg seam, and was formerly owned and operated by the Gilchrist Coal Company. It was purchased by the Wiota Coal Company on or about April 1st, 1903. Considerable water has generated in this mine, and heretofore the drainage has been bad. The present management, however, has driven a heading to out crop for drainage, and on date of last inspection the mine was found to be fairly well drained. The incline, at this place is 1200 ft. long over which the coal is lowered to the tippie.

Coal is loaded at this mine for both railroad and river trade. Sixteen feet have been added to the height of furnace stack and new brattices constructed, which has greatly improved the ventilation. The oil used for illuminating purposes is legal test and up to the standard. During the year it was recommended that more height be added to furnace stack, that new brattices be constructed, and that a water way be driven through out-crop. These suggestions have been complied with. Three inspections were made of this mine during the year and three certificates issued.

J. R. SPENCE, Supt. & Mine Boss.

J. J. WALSH COAL CO.

No. 3. *Wellsburg or Lewis Mine*.—This mine is located at Wellsburg on the P. C. C. & St. L. R. R., on the Ohio river. It was formerly operated by Forbes & Carmichael, who had operated same for fifty years. Before abandoning it the present owner acquired new territory, cleaned up and retimbered the old haulway and laid new steel. Ventilation is produced by furnace, which gives fairly good results. Drainage throughout the mine is good. A fair quality of miner's oil was found to be used for illuminating purposes. The mine is being developed on the double entry system with 50 ft. center and 24 ft. wide. Mine doors and stoppings were found in good repair. The incline at this place is 1200 feet over which the coal is lowered to the tippie. A new tippie has been constructed and new wheel and wheel house at top of plane.

All suggestions offered have been complied with and one inspection made of the mine during the year and certificate of same issued the company.

J. J. WALSH, Supt.

E. SPENCE, Mine Boss.

WELLS COAL CO.

No. 4. *Bowman Mine*.—This mine is located sixteen miles north of Wheeling, on the P. C. C. & St. L. R. R. and Ohio river. It is a drift opening in the No. 8 or Pittsburg. Ventilation is produced by fire basket, which furnishes a fair amount of ventilation for the number of men employed. The mine is developed on the double entry system. The incline at this place is 800 ft., over which the coal is lowered to the tippie.

Compliance has been made with all suggestions, and the usual number of inspections made and certificates issued.

C. B. COLBURN, Supt.

DANIEL YOUNG, Mine Boss.

HANCOCK COUNTY.

M. M. CULLEN.

No. 5. *Porter Mine*.—This mine is located two miles east of New Cumberland on Harden's Run. It is a drift opening in the No. 6, employing fifteen to eighteen men. The mine has no railroad connection and depends on local trade. Ventilation at this mine is produced by furnace, which furnished sufficient air throughout the mine. Very little water is generated in this mine and drainage is good. The oil used for illuminating purposes meets with the standard requirements.

There have been four inspections made at this mine during the year, four certificates issued, and all suggestions offered have been complied with.

M. M. CULLEN, Supt. and Mine Boss.

MARQUET COAL CO.

No. 6. *Marquet Mine*.—This mine is located one mile east of New Cumberland, on a branch of the P. C. C. & St. L. R. R., on Harden's Run. It is a drift opening in the No. 6. Ventilation is produced by a 12 ft. Brazil force fan, which furnishes ample ventilation throughout the mine. Some water is generated in this mine, necessitating the use of a small electric pump. Extensive improvements were made at this mine during the year, consisting of a new tippie with a Mitchell cross over dump, one hundred and fifty H. P. Erie boiler, a one hundred K. W. Jeffrey's generator, a ten ton Jeffrey's mine locomotive, and five chain mining machines of the Jeffrey's type. The roof in this mine is a hard slate, making a splendid roof. Drainage throughout the mine is good. The oil used for illuminating purposes meets with the standard requirements. Special rules were posted as required by law, and blankets and stretchers are kept on hand at the mine.

All suggestions offered have been complied with. The usual number of inspections were made during the year and certificates issued.

C. F. WAGNER, Supt.

WILLIAM LIDYARD, Mine Boss.

HARRISON COUNTY.

CLARKSBURG FUEL CO.

No. 7. *Pinnickinnick Mine No. 1*.—This mine is located 1 mine east of Clarksburg on the B. & O. R. R., and is a slope opening to the Pittsburg seam. Mine is ventilated by a fan which gives good ventilation throughout the mine. Drainage fair. Machinery and general safety good. Timbering good. Oil used for illuminating purposes comes up to the standard requirement. Condition in and about the mine is satisfactory. Four inspections were made of this mine during the year and three certificates issued.

J. H. HAMILTON, Supt.

FRANK FLAHERTY, Mine Boss.

No. 8. *Fall Run or Pk. Mine No. 2*.—Ventilation, drainage and general condition of this mine, good. All suggestions offered have been adopted. Four inspections of this mine have been made during the year and three certificates issued.

H. H. WATSON, Supt.

WILLIAMS VICKERS, Mine Boss.

No. 9. *Dixie Mine*.—Dixie mine is located on the W. Va. & Pittsburg Div. of the B. & O. R. R., 2 miles from Clarksburg. The coal is from 7 to 8 feet in thickness, and is developed on the double entry system. Ventilation good, drainage fair. Roadway in good repair, free of obstructions. Cross-cuts are regularly driven. Oil used for illuminating purposes comes up to the requirements. Mine rules are posted. The general conditions in and about this mine are satisfactory. There were four inspections made of this mine during the year and three certificates issued.

J. L. MEREDITH, Supt.

J. L. MEREDITH, Mine Boss.

No. 10. *Two Lick Mine*.—This mine is located six miles from Clarksburg on the W. Va. & Pittsburg Div. of the B. & O. R. R. Fifteen houses and one large barn have been erected, and other improvements made during the year. Ventilation is good, also drainage and timbering. Conditions for safety are satisfactory. Four inspections were made of this mine during the year and four certificates issued.

C. E. STARR, Supt.

TONY STARR, Mine Boss.

No. 11. *Interstate Mine*.—Interstate mine is located on the W. Va. & Pittsburg Div. of the B. & O. R. R., 9 miles from Clarksburg. The coal varies in thickness from 6 to 8 feet, and is developed on the tripple entry system. Ventilation and drainage good, also timbering. Roadways are in good repair, free from loose coal and slate. The oil used for illuminating purposes comes up to the standard. During the year fifteen houses and one large barn have been erected, with other substantial improvements. General conditions good. All suggestions complied with, and the usual number of inspections were made during the year with certificates of same rendered the company.

LOWELL CHILDS, Supt.

JOHN JENKINS, Mine Boss.

No. 12. *O'Neil Mine No. 1*.—During the year fifteen houses were built at this mine, and other improvements made. Drainage, ventilation and general condition for safety good. This mine is located five miles west of Clarksburg on the main line of the B. & O. R. R. Four inspections were made during the year and certificates issued.

J. W. PARKER, Supt.

C. J. FOWLER, Mine Boss.

No. 13. *O'Neil Mine No. 2*.—This mine is located five miles west of Clarksburg on the B. & O. R. R. During the year fifteen new houses and one large barn were built at this mine. Ventilation good, drainage fair, roadways in good repair, with general conditions, except oil used for illuminating purposes, very satisfactory. On account of oil wells being so near it has given us trouble to keep the men from using the natural oil. General conditions for safety in and about the mine are satisfactory. During the year four inspections were made and certificates issued to the company.

J. W. PARKER, Supt.

S. P. ROWAND, Mine Boss.

FAIRMONT COAL CO.

No. 14. *Enterprise Mine*.—Enterprise Mine is located on the W. Va. & Pittsburg Div. of the B. & O. R. R., 9 miles from Clarksburg. Ventilation and drainage good. Roadways are in good repair. Oil used for illuminating purposes is up to the standard. Rules are posted. General conditions

for safety good. The usual inspections during the year were made and certificates issued.

G. W. FLEMING, Supt.

WILLIAM GANTZ, Mine Boss.

No. 15. *Viropa Mine*.—This mine is located 14 miles from Fairmont on the M. R. Div. of the B. & O. R. R. It is a drift mine in the Pittsburg seam. Three openings clear of obstruction. Ventilation and drainage good. The mine is well timbered throughout and all machinery and mechanical appliances are in good condition. General conditions for safety good. Four inspections of this mine have been made during the year and the usual certificates issued.

G. W. FLEMING, Supt.

G. W. ELIASON, Mine Boss.

No. 16. *Ehlen Mine*.—This mine is located 16 miles from Clarksburg on the M. R. Div. of the B. & O. R. R., and is a drift mine in the Pittsburg seam. Good ventilation and drainage. All mechanical appliances are in good condition. Mine rules are posted. General conditions for safety good. Four inspections were made of this mine during the year and certificates issued of same.

THOS. JARRETT, JR., Supt.

H. S. COLBURN, Mine Boss.

No. 17. *Solon Mine*.—This mine is located 15 miles from Clarksburg on the M. R. Div. of the B. & O. R. R. Eight double houses and other improvements have been made at this mine during the year. Ventilation is furnished by fan which gives good air well distributed throughout the mine. Drainage fair. Roadways and the general condition in and about the mine very satisfactory. The usual inspections were made of this mine during the year and certificates issued to the company.

THOS. JARRETT, Supt.

W. J. B. ROLLINS, Mine Boss.

No. 18. *Gypsy Mine*.—Gypsy mine is located on the M. R. Div. of the B. & O. R. R., 12 miles from Clarksburg. During the year a large and modern tibble has been erected, and motor haulage installed in the mine, which, with other improvements, bring the Gypsy mine up to first class. Machinery and mechanical appliances for handling coal, and general conditions for safety very satisfactory.

C. F. ICE, Supt.

BERT RUSSELL,

JAS. AMBERCROMBIE, Mine Bosses.

No. 19. *Harbert Mine*.—This mine is now a part of the Gypsy Mine.

No. 20. *Maulsby Mine*.—This mine is located 11 miles north of Clarksburg on the M. R. Div. of the B. & O. R. R. Ventilation is good and drainage fair. Oil for illuminating purposes, fair. General conditions for safety good. Four inspections were made of this mine during the year and certificates issued to the company.

C. F. ICE, Supt.

N. H. HACKER, Mine Boss.

No. 21. *Meadowbrook Mine*.—Meadowbrook mine is located on the M. R. Div. of the B. & O. R. R., 9 miles from Clarksburg. This is a drift mine, worked on the three entry system. Ventilation and drainage good. Timbering good. Oil used for illuminating purposes comes up to the requirement. Stretchers are kept on hand. Mine rules are posted. General conditions in and about the mine are satisfactory. During the year the usual number of inspections were made of this mine and certificates issued.

P. ROBINSON, Supt.

E. F. WORCESTER, Mine Boss.

No. 22. *Farnum Mine*.—This mine is located 6 1-2 miles north of Clarksburg on the M. R. Div. of the B. & O. R. R. Ventilation by fan, and 12 unobstructed openings which give good air throughout the mine. Drainage good with an exceptionally good roof. Roadways in good repair, and oil used is up to the requirements. Conditions for general safety satisfactory. Four inspections were made of this mine during the year and certificates issued.

H. H. WATSON, Supt.

J. P. McANDREW, Mine Boss.

No. 23. *Glen Falls Mine*.—This mine is located five miles north of Clarksburg on the M. R. Div. of the B. & O. R. R. Machine mining, compressed air power. Ventilation, drainage and general conditions good. Four inspections were made of this mine during the year and certificates issued.

H. H. WATSON, Supt.

W B. SIMS, Mine Boss.

No. 24. *Dunham Mine*.—This mine is located five miles north of Clarksburg on the M. R. Div. of the B. & O. R. R. During the year an electric power plant has been installed at this mine. Ventilation and drainage good. Second opening comes up to the requirements of the law. General conditions for safety good. The usual number of inspections were made of this mine during the year and certificates issued.

H. H. WATSON, Supt.

CHAS. VICKERS, Mine Boss.

No. 25. *Lynch Mine*.—Lynch mines are located on the W. Va. & Pittsburgh Div. of the B. & O. R. R., 6 miles from Clarksburg. Ventilation good. Drainage fair. Second opening comes up to the requirements of the law. Oil used for illuminating purposes comes up to the standard. General conditions for safety in this mine good. Three inspections were made of this mine during the year and three certificates issued.

C. E. STARR, Supt.

MELVIN LEACH, Mine Boss.

No. 26. *West Fork Mine*.—This mine was not in operation during the year.

No. 27. *Reynoldsville or Summit Mine*.—This mine is located 7 miles west of Clarksburg on the B. & O. R. R. During the year one new boiler, large barn and other improvements have been made at this works. Ventilation good, drainage fair and general conditions good. During the year four inspections were made of this mine and certificates issued.

WILLIAM GOODNITE, Supt.

WILLIAM GOODNITE, Mine Boss.

No. 28. *Columbia Mine*.—Columbia mine is located on the B. & O. R. R., 2 miles east of Clarksburg. During the year fifteen houses, tail-rope haulage and other improvements were made at this mine. Good ventilation and fair drainage. Timbering and all other conditions satisfactory. Four inspections were made of this mine during the year and certificates issued.

J. H. NUZUM, Supt.

RALPH BROWN, Mine Boss.

No. 29. *Ocean Mine*.—This mine is located 3 miles from Clarksburg on the B. & O. R. R. Ventilation, drainage and general conditions for safety very satisfactory. Machine mining. Power, compressed air. During the year fifteen houses have been built. Two 150 horse power boilers have been added to this plant. Four inspections were made of this mine during the year and certificates issued.

E. P. GOEDECKE, Supt.

U. B. BLAKESMITH, Mine Boss.

No. 30. *Riverdale Mine*.—This is a drift mine located on the M. R. Div.

of the B. & O. R. R., 17 miles north of Clarksburg. During the year an electric plant with all the modern appliances for mining, has been installed at this mine. Ventilation and drainage good. Oil for illuminating purposes up to the standard. General conditions for safety satisfactory.

H. L. TOOTHMAN, Supt.

D. A. WILSON, Mine Boss.

PITTSBURG & FAIRMONT COAL CO.

No. 31. *Howard Mine.* This mine has been abandoned.

No. 32. *Perry Mine No. 1.*—This mine is located on a branch of the W. Va. Short Line R. R., 3 miles from Clarksburg. Ventilation, drainage and general conditions good. Electric motor haulage installed at this mine during the year. Four inspections were made of this mine during the year and certificates issued.

E. H. WILLIAMS, Supt.

OTIS JACOBY, Mine Boss.

No. 33. *Perry Mine No. 2.*—This mine is located three miles west of Clarksburg on the W. Va. Short Line R. R. Motor haulage was installed during the year. Ventilation, drainage and conditions for safety good.

Three inspections were made of this mine during the year and three certificates issued.

E. H. WILLIAMS, Supt.

OTIS JACOBY, Mine Boss.

No. 34. *Perry Mine No. 3.*—This mine is located two miles west of Clarksburg on the W. Va. Short Line R. R. All machine mining. A new electric fan was installed during the year, giving good ventilation. Drainage good.

There were three inspections made of this mine during the year, and three certificates issued.

E. H. WILLIAMS, Supt.

FLOYD GANDY, Mine Boss.

FAIRMONT & BALTIMORE C. & C. CO.

No. 35. *Fairmore Mine.*—Fairmore mine is located on the B. & O. R. R., 2 miles west of Clarksburg. During the year new tipples have been built, tail-rope haulage installed, twenty houses, with other improvements, have been added to the plant. Ventilation good, drainage fair. Timbering and general condition of the mine satisfactory.

During the year four inspections were made of this mine and three certificates issued.

W. A. SOMERVILLE, Supt.

THOMAS WESTMORELAND, Mine Boss.

COOK COAL & COKE CO.

No. 36. *Girard Mine.*—This mine is located on the M. R. Div. of the B. & O. R. R., 9 miles from Clarksburg. Improvements have been made at this mine during the year, mining machines, electric haulage and Stine fan having been added, making this one of our up-to-date mines. Ventilation and drainage good. Conditions for general safety good.

During the year four inspections were made at this mine and three certificates issued.

W. H. H. MILLER, Supt.

WILLIAM H. STEWART, Mine Boss.

PITTSBURG & FAIRMONT FUEL CO.

Nos. 37 & 38. *Pooz Mines Nos. 1 & 2.*—These are drift mines located on the W. Va. Short Line R. R., 12 miles from Clarksburg. A small quantity

of gas has been found in No. 1 mine. Machinery and all mechanical devices for handling the coal have been installed at this mine. Drainage and timbering and general conditions for safety are good. Mine No. 2 has as yet not been put in operation.

Four inspections were made of this mine during the year and three certificates issued.

D. V. P. LARIMER, Supt.

A. L. BLACK, Mine Boss.

MEADOWBROOK COAL & COKE CO.

No. 39. *Erie Mine*.—This mine is located on the W. Va. Short Line R. R., 6 miles from Clarksburg. Ventilation, drainage and general conditions for safety are good. Roadways are in good condition. The mining laws are complied with.

Four inspections were made of this mine during the year and three certificates issued.

L. L. CRAWFORD, Supt.

C. D. M. CRAMER, Mine Boss.

CLARK COAL CO.

No. 40. *Waldo Mine*.—Waldo mine is located 4 miles west of Clarksburg on the B. & O. R. R. Ventilation and drainage good. Timbering good. machinery and all appliances for handling coal satisfactory. This is an up-to-date mine in all its equipments.

Four inspections were made of this mine during the year and three certificates issued.

HARRY B. CLARK, Supt.

J. J. ODELL, Mine Boss.

COOK & HART COAL CO.

No. 41. *Cork Mine*.—This mine is located 5 miles from Clarksburg on the W. Va. & Pittsburg Div. of the B. & O. R. R. Very little work has been done at this mine during the year. Five houses have been built and two new mine openings made. Ventilation is good and drainage fair. General conditions for safety are good.

Four inspections were made of this mine during the year and two certificates issued.

T. G. COOK, Supt.

THOMAS G. COOK, Mine Boss.

ROSEBUD COAL CO.

No. 42. *Kestler Mine*.—This is a drift mine located on the W. Va. Short Line R. R., 16 miles from Clarksburg. It is the Pittsburg vein, 7 to 8 feet, and developed on the double entry system. All pick mining. Ventilation is good. Timbering and general conditions satisfactory. Three inspections made and three certificates issued this year.

FRANK WILLIAMS, Supt. and Mine Boss.

HUTCHINSON FUEL CO.

Nos. 43 & 44. *Byron Mines No. 1 & No. 2*.—These mines are located on the W. Va. & Pittsburg Div. of the B. & O. R. R., 8 miles from Clarksburg. The coal is mined by machinery. Power, compressed air. Drainage and ventilation are good. General conditions in and about the mines very satisfactory.

During the year three inspections were made of this mine and three certificates issued.

W. G. H. CRAWFORD, Supt.

W. B. WILSON, Mine Boss.

PHOENIX COAL MINING & COKE CO.

No. 45. *Phoenix Mine*.—This is a slope mine located on the B. & O. R. R., 7 miles west of Clarksburg. Some gas is found in this mine. A fan has recently been put in place which gives good ventilation. Drainage is good and general conditions for safety satisfactory, except a second opening which is not yet completed, but will be in the near future.

During the year four inspections were made of this mine and three certificates issued.

J. J. ELLIOTT, Supt.

E. MUIR, Mine Boss.

SOLO-LOWERY COAL CO.

No. 46. *Solon-Lowery Mine*.—Solon-Lowery mine is a slope located on the B. & O. R. R., 7 miles west of Clarksburg. This is a new mine equipped with all the modern machinery for mining and handling coal. Ventilation and drainage good. All the conditions for safety throughout this mine are satisfactory.

Three inspections were made of this mine during the year and two certificates issued.

JOHN TEMPLE, Supt.

B. N. MONROE, Mine Boss.

LUKENS COAL CO.

No. 47. *Lukens Mine*.—This is a drift mine located on the W. Va. & Pittsburg Div. of the B. & O. R. R., 6 miles west of Clarksburg. It is a new mine with modern equipment. Ventilation and drainage good.

Timbering and all conditions for safety very satisfactory. There were three inspections of this mine made during the year and three certificates issued.

JOHN TEMPLE, Supt.

PAT PICKETT, Mine Boss.

CHIEFTAIN COAL CO.

No. 48. *Chieftain Mine*.—Chieftain mine is located 7 miles west of Clarksburg on the B. & O. R. R. This mine has just been completed. Two 150 horse power boilers, a large electric plant, motor and haulage machines have been installed, making this one of the up-to-date mines. Two inspections were made of this mine during the year and one certificate issued.

J. W. GRAHAM, Supt.

WILLIAM GOODFELLOW, Mine Boss.

PITCAIRN COAL CO.

No. 49. *Pitcairn Mine*.—This mine is not in operation. It was inspected twice during the year and one certificate issued.

HEROL COAL CO.

Nos. 49A & 49B. *Herol Mine Nos. 1 & 2*.—This mine is not in operation.

MARION COUNTY.

FAIRMONT COAL CO.

No. 50. *Murray Mine*.—This mine is 9 miles from Fairmont on the

Connellsville division of the B. & O. R. R. Coal is mined by machinery,, the power being furnished by electricity. Ventilation good and drainage fair. Timbering good throughout the mine. Oil used for illuminating purposes is up to the standard. All appliances in and about the mine satisfactory.

During the year the usual inspections have been made of this mine and certificates issued to the company.

J. H. BAINBRIDGE, Supt.

W. N. MALONE, Mine Boss.

No. 51. *Montana Mine*.—Montana mine is located 5 miles north of Fairmont on the Connellsville Div. of the B. & O. R. R. During the year trouble has been experienced by the caving in of the mouth of this mine. This has all been opened up and a substantial stone wall has been built which will insure protection from any caving or squeezes in the future. A great amount of rock and draw slate is handled in this mine, which is being done by the local management very successfully. The number of accidents has been small, in fact a fewer number of accidents than a great many other mines whose conditions for safety are far better. This speaks well for the efficient care of the local management. Ventilation is good. Drainage fair. Timbering and the general conditions satisfactory, except the roof conditions.

There have been four inspections made at this mine during the year and three certificates issued.

C. E. GASKILL, Supt.

W. M. GASKILL, Mine Boss.

No. 52. *Aurora Mine*.—Aurora mine is located on the Connellsville Div. of the B. & O. R. R., 2 miles north of Fairmont. Ventilation good drainage fair. Timbering good. This is a small mine, working only a few men. General conditions satisfactory. Three inspections were made of this mine during the year and three certificates issued.

C. E. GASKILL, Supt.

MIKE FREEMAN, Mine Boss.

No. 53. *West Fairmont Shaft*.—West Fairmont Shaft is located 2 miles north of Fairmont on the B. & O. R. R. Gas is found in small quantities in the advanced workings. Ventilation good, drainage fair. Timbering good. Roadways are free from loose coal and slate and are in good repair. There are three outlets for this mine clear of obstructions. Ventilation is furnished by an exhaust fan which gives a good current through the mine. During the year an up-to-date steel tibble has been erected, new machinery installed, thus making the general condition in and about this mine very satisfactory.

There were four inspections made of this mine during the year and three certificates issued.

J. J. BRENNEN, Supt.

WILLIAM GANTZ, Mine Boss.

No. 54. *O'Donnell Mine*.—O'Donnell mine is located 25 miles from Clarksburg on the Wheeling Div. of the B. & O. R. R., 1 mile from Fairmont. This mine has been worked for a great many years. Coal is mined by pick. Natural ventilation with a great many outlets, which makes ventilation and drainage good. Conditions for safety are good. During the year there were made at this mine three inspections and three certificates issued.

J. C. McKINNEY, Supt.

J. C. McKINNEY, Mine Boss.

No. 55. *New England Mine*.—New England mine is located on the B. & O. R. R., 2 miles south of Fairmont. During the year an electric haulage system and four motors were put into this mine. Other substantial improvements were made. Ventilation and drainage good. Timbering and general conditions for safety were satisfactory. During the year there were four inspections made at this mine and three certificates issued.

GEO. T. WATSON, Supt.

J. C. THOMPSON, Mine Boss.

B. F. HOLDSWORTH and J. O. M. HALL, Fire Bosses.

No. 56. *Gaston Mine*.—Gaston slope is located on the B. & O. R. R., 1 1-2 miles south of Fairmont. Ventilation, drainage and timbering good. A small amount of gas is found in some of the advanced headings. Air is well distributed throughout the mine, the small amount of gas giving no trouble. The roadways are in good repair, free from loose coal and slate. Mine doors and stoppings are in good condition. All machinery and mechanical appliances in use are in good condition. The general conditions for safety are satisfactory.

There were four inspections made at this mine during the year and three certificates issued.

GEORGE T. WATSON, Supt.

C. H. TARLETON, Mine Boss.

I. J. GATTAIN and J. E. TRICKETT, Fire Bosses.

No. 57. *Monongah No. 2 & No. 5 Mines*.—Monongah No. 2 mine is located on the M. R. Div. of the B. & O. R. R., 6 miles south of Fairmont. Coal varies in thickness from 6 to 9 feet and is developed on the double entry system. Ventilation and drainage good. Timbering good. Condition in and about the mine for safety is satisfactory.

During the year there were four inspections made of this mine and three certificates issued.

A. J. RUCKMAN, Supt.

THOS. KILLEEN, Mine Boss.

No. 58. *Monongah Mine No. 3*.—This mine is located in the M. R. Div. of the B. & O. R. R., 7 miles south of Fairmont. Ventilation and drainage good. Timbering and general conditions for safety good. Roadways are in good repair and are free from loose coal and slate. Machinery and all mechanical appliances are in satisfactory condition.

There were four inspections made of this mine during the year and three certificates issued.

A. J. RUCKMAN, Supt.

JAS. ROGERS, Mine Boss.

No. 59. *Monongah Mine No. 5*.—This mine is now a part of the Monongah No. 2 mine.

No. 60. *Monongah Mine No. 6*.—Monongah mine No. 6 is a slope located on the west side of the W. Fork river, and brought from the mine over a bridge to the M. R. Div. of the B. & O. R. R., 7 miles south of Fairmont. A small amount of gas is found in the advanced workings of this mine. Ventilation is well distributed throughout the mine and roadways are in good condition. The second opening comes up to the requirements of the law. All the conditions in and about this mine for safety are satisfactory.

During the year four inspections were made of this mine and three certificates issued to the company.

A. J. RUCKMAN, Supt.

THOS. DONLIN, Mine Boss.

GRANT PILES and THOS. BURLOCK, Fire Bosses.

No. 61. *Pennois Mine*.—This mine is located 8 miles from Fairmont on the M. R. Div. of the B. & O. R. R. Ventilation and drainage good. Oil used for illuminating purposes is up to the standard. Mine rules are posted and general conditions satisfactory at this mine.

Four inspections were made of this mine during the year and three certificates issued.

THOS. S. HAYMOND, Supt.

JOHN RIGGINS, Mine Boss.

No. 62. *Marion Mine*.—This is a drift mine located on the M. R. Div. of the B. & O. R. R., 8 miles from Fairmont. Furnace ventilation of this mine is good. Drainage fair. General conditions in and about this mine are very satisfactory.

There were three inspections made of this mine during the year and three certificates issued.

THOS. HAYMOND, Supt.

GEORGE SKINNER, Mine Boss.

No. 63. *Anderson Mine*.—This mine is located 9 miles from Fairmont on the M. R. Div. of the B. & O. R. R. The coal at this mine varies in thickness from 7 to 8 feet, and is developed on the double entry system. Ventilation good, also drainage and timbering. All conditions in and about this mine are satisfactory.

There were four inspections made at this mine during the year and three certificates issued.

THOS. HAYMOND, Supt.

GEORGE COBURN, Mine Boss.

No. 64. *Highland Mine*.—This mine is located 9 miles from Fairmont on the M. R. Div. of the B. & O. R. R. It is a drift opening in the Pittsburg vein. Ventilation and drainage good. Timbering and all conditions for safety good. There were three inspections made of this mine during the year and three certificates issued.

THOMAS S. HAYMOND, Supt.

B. E. SATTERFIELD, Mine Boss.

No. 65. *Middleton Mine*.—This mine is located 9 miles south of Fairmont on the M. R. Div. of the B. & O. R. R. The drainage is good and oil used fair. General conditions for safety in and about this mine very satisfactory.

There were four inspections made of this mine during the year, and three certificates issued.

THOMAS S. HAYMOND, Supt.

B. E. SATTERFIELD, Mine Boss.

No. 66. *Chiefton Mine*. This mine was regularly inspected during the year and certificates issued to the company.

In September, 1902, the ventilation was found to be only fairly good. Instructions were given to furnish more air in the advanced workings and to use care in taking down loose slate. Subsequent inspection found the mine in a satisfactory condition.

C. A. BROOKS, Supt.

WILLIAM KEEFE, Mine Boss.

No. 67. *Hutchinson Mine*.—This mine is located 12 miles from Fairmont on the M. R. Div. of the B. & O. R. R. Ventilation and drainage are good, timbering also. The oil used for illuminating purposes is up to

the standard. Conditions for safety in and about the mine are good. The regular inspections were made of this mine during the year and certificates issued to the company.

G. W. FLEMING, Supt.

THOMAS POLLOCK, Mine Boss.

VIRGINIA & PITTSBURG C. & C. CO.

No. 68. *King Mine*.—All coal in this mine is mined by pick. During the year one pair of 14x18 haulage engines and one 80 horse power boiler were installed at this mine. Ventilation, drainage and general conditions for safety are good. This mine is located 3 1-2 miles south of Fairmont on the B. & O. R. R. Four inspections were made of this mine during the year and three certificates issued to the company.

R. M. HITE, Supt.

WILLIAM REED, Mine Boss.

GEORGE'S CREEK COAL & IRON CO.

No. 69. *Chatham Shaft Mine Nos. 1 & 2*.—Chatham shaft is located on the Wheeling Div. of the B. & O. R. R., 11 miles from Fairmont. Ventilation and drainage, good. Timbering is good. General conditions for safety are satisfactory. The coal is mined by machines. Power, compressed air. During the year rope haulage was installed, and brick stoppings have been put in throughout the mine. Machinery and all appliances for handling coal are in first-class condition. During the year four inspections were made of this mine and three certificates issued to the company.

R. L. SOMERVILLE, Supt.

E. L. GRIFFITH, Mine Boss.

M. E. QUENNON and E. AMBROSE, Fire Bosses.

FEDERAL COAL & COKE CO.

No. 70. *Federal Shaft Mine*.—Federal shaft is located on the Paw Paw branch of the B. & O. R. R., 7 miles from Fairmont. The coal varies in thickness from 9 to 9 1-2 feet. This mine is developed on the double entry system. The drainage is to a large sump hole, and from there lifted to the surface by steam pumps. Capacity five hundred gallons per minute. Drainage is fair. During the year quite a little trouble has been experienced, partly on account of the change in management, and an insufficiency of air to properly ventilate the mine. These deficiencies, however, have been remedied and the mine is being put in first class condition. Machinery and all appliances for hauling coal are up to date. The usual inspections were made of this mine during the year and certificates issued to the company.

J. H. LEWIS, Supt.

HUGH MARLING, Mine Boss.

H. H. PIERCE, Fire Boss.

NEW CENTRAL COAL CO.

No. 71. *Stafford Shaft Mine*. This shaft is located on the Paw Paw branch of the B. & O. R. R., 6 miles from Fairmont. This shaft is 252 feet to the Pittsburg coal, causing a small amount of gas. Machinery and all appliances for handling coal are first class. Ventilation is produced by a Capel fan, giving an intake of 114,000 cubic feet of air per minute, well distributed. Ventilation and drainage and general conditions for safety are good.

During the year five inspections were made of this mine and three certificates issued.

JOHN STEWART, Supt.

JOHN CLARK, Mine Boss.

KILARM COAL & COKE CO.

No. 72. *Kilarm Mine*.—This mine is located on the Everson & Adamsville branch of the B. & O. R. R., 10 miles from Fairmont. It has been in operation only one year and is an up-to-date mine. Everything in and about the mine was found in good condition.

There were three inspections made at this mine during the year and three certificates issued.

G. E. ZECK, Supt.

P. H. ROONEY, Mine Boss.

MONONGALIA COUNTY.

MARRIETTA & STILLWAGON.

No. 73. *Opekiska Mine*.—This mine is located on the Connellsville Div. of the B. & O. R. R., 11 miles from Fairmont. During the winter there was a large amount of mud and water accumulated in this mine on account of light covering over the coal. The mine has now been cleaned up. Drains and haulways are in a very satisfactory condition. Mine rules are posted and mine laws complied with.

During the year the usual inspections were made of this mine and certificates issued to the company.

ROBERT GORDON, Supt.

F. C. LOVE, Mine Boss.

FAIRMONT COAL CO.

No. 74. *Beechwood Mine*.—Beechwood mine is located on the Connellsville branch of the B. & O. R. R., 13 miles from Fairmont. During the year one electric plant, three Jeffrey mining machines, one 10 ton electric motor have been installed at this mine, making it one of the up-to-date mines in the First District. Ventilation and drainage are good. Timbering and all conditions for safety are very satisfactory.

W. W. FERGUSON, Supt.

LEE COTTRELL, Mine Boss.

WEST VIRGINIA COAL CO.

No. 75. *Richard Mine*.—Richard mine is located on the M. & K. R. R., on Decker's creek, 4 miles from Morgantown. This is a new mine, having just been opened up to supply 75 Bee Hive coke ovens. Mining will now be done by machine. Power, compressed air. When the machinery now on the ground is put in place this will make an up-to-date plant. On my last visit I found general conditions very satisfactory. Three inspections were made of this mine during the year and certificates issued.

JAS. CARTER, Supt.

THOS. A. MATHEWS, Mine Boss.

DECKER'S CREEK COAL & COKE CO.

No. 76. *Decker's Creek Mine*.—Decker's Creek mine is located on Decker's creek on the M. & K. R. R., 4 miles from Morgantown. This is a new mine opened in the upper Freeport coal to furnish coal for a coke plant, which at the present time is not in operation. There were three in-

spections made of this mine during the year and two certificates issued to the company.

JOHN MILLER, Supt.

JOHN MILLER, Mine Boss.

A. C. FULMER & CO.

No. 77. *Fulmer Mine.*—This mine is located on a branch of the M. & K. R. R., 3 miles from Morgantown. At the present time this mine is not in operation. There were two inspections made of this mine during the year and three certificates issued to the company.

URIAH SMITH, Supt. and Mine Boss.

MARSHALL COUNTY.

HITCHMAN COAL & COKE CO.

No. 78. *Junction Mine.* This mine is located about 4 miles south of Wheeling at Benwood Junction on the B. & O. R. R., and Ohio River. It is a slope opening in the No. 8 or Pittsburg vein, with 600 foot slope with a 15 per cent. grade. The mine is developed on the three entry system on cross headings, with rooms driven 32 feet from center to center and 27 feet wide. Ventilation is produced by a 20-foot Monongahela reversible fan which furnishes an abundance of air throughout the mine. Very little water is generated in this mine and drainage is good. Mine doors and stoppings were found in good repair. Some trouble was experienced in breaking up the practice of the machine runners and helpers using their machine oil for illuminating purposes. The superintendent, at my suggestion, posted a notice that in the future any employe caught burning other than standard quality of miners oil for illuminating purposes would be liable to dismissal and prosecution. The mine is equipped with endless rope haulage, a power plant with two 150 horse power Erie boilers, and a 100 K. W. Jeffreys generator. They have at this place a splendid steel tippie, with a coal bin of 400 tons capacity. This is a coaling station for four divisions of the B. & O. R. R. Special rules are posted as required by law. Blankets and stretchers are kept on hand at the mine. All suggestions offered have been adopted. During the year there were three inspections made of this mine and three certificates issued to the company.

D. C. PICKETT and W. H. KOCH, Supts.

C. V. CORNES and E. S. PICKETT, Mine Bosses.

IKE MURRAY, Fire Boss.

BOGGS RUN MINING CO.

No. 79. *Boggs Run Mine.*—This mine is located one mile south of Wheeling on the B. & O. R. R., and Ohio River. It is a drift opening in the No. 8 or Pittsburg. Ventilation is produced by a 12-foot force fan of the Brazil type, which furnishes a fair amount of ventilation throughout the mine. The mine is developed on the double entry system, with 50-foot pillars between entries and rooms driven 34 feet from center to center and 24 feet wide. Very little water is generated in this mine, and drainage is fairly good. A gasoline pump is set in return airway which, running two days per week, keeps the mine free from water. Mine doors and stoppings were found in fair condition. The oil used for illuminating purposes is legal test. The roof of this mine is draw slate and roof coal, making a fairly

good roof when properly timbered. Several places along main haulway required timbering. On notifying the superintendent he promised to have the necessary timbering done as soon as possible. A tail-rope haulage is in use at this mine. Also a haulage plant with 150 horse power haulage engine, and two 100 horse power boilers. Special rules are posted as required by law. Blankets and stretchers are also kept on hand at the mine. All suggestions offered have been adopted. There were three inspections made of this mine during the year and three certificates issued to the company.

PHILIP KOONZ, Supt.

EUGENE MILLER, Mine Boss.

WHEELING STEEL & IRON CO.

No. 80. *Benwood Mine*.—This mine is located two miles south of Wheeling at the Benwood plant of the Wheeling Steel & Iron Co. It is a drift opening in the Pittsburg vein, and furnishes fuel for the Benwood Mills of this company. A 12-foot reversible fan of the Robinson type furnishes ample ventilation at this mine. The mine is developed on the double entry system. Very little water is given off at this mine at the present time. Large areas of water which had been walled in abandoned parts of the mine have in the last year been pumped out, thus removing a source of danger. A large gasoline engine and pump are set in return air way which, by being run a few hours per week, keeps the mine free from water.

This mine has been entirely remodeled within the last year. The main haulage of the entire length has been widened and re-timbered, giving a width of 7 feet and a height of 6 feet. The track has been relaid with 50 pound steel, a 15-ton Jeffrey electric mine locomotive has been installed and there are three chain mining machines of the Jeffrey type in use, also a 12-foot Robinson fan. Power is furnished from the power plant of the Benwood mill. Special rules are posted as required by law. Blankets and stretchers are kept on hand at the mine. All suggestions offered have been adopted. There were three inspections made of this mine during the year and three certificates issued to the company.

C. DAWSON Supt.

W. M. TURNBULL, Mine Boss.

THE GLENDALE COAL CO.

No. 81. *Glendale Shaft Mine*.—This mine is located at Glendale, 8 miles south of Wheeling on the B. & O. R. R., and Ohio River. It is a shaft opening in the No. 8 or Pittsburg vein. The coal at this place is found at a depth of 90 feet. Ventilation is produced by 16-foot Brazil fan, which furnished ventilation if properly handled. The ventilation at this mine has not been what it should be, owing to the management allowing the return air way to become clogged with falls of slate and water. At my suggestion the superintendent promised to have same removed as soon as possible.

The mine is developed on the double entry system with 40-foot pillars between entries, and rooms are driven 35 feet from center to center and 28 feet wide. Owing to the mine being worked to the dip considerable water is generated. An electric pump with a capacity of 200 gallons per minute is located in the dip workings, and a steam pump is located at the bottom of the shaft. Drainage is fairly good throughout the mine.

Mine doors and stoppings were found to be in a fairly good condition. The management has been replacing the wood stoppings with brick, which give more satisfactory results. A fair quality of miners' oil was found in use for illuminating purposes. The roof in several places along the main haulage was found to be broken, and the management notified to timber the same promptly. All mechanical appliances were found in satisfactory condition. Special rules have been posted as required by law. Blankets and stretchers are kept on hand at the mine. All suggestions offered have been adopted.

The power plant at this mine consists of five steam boilers, one 100 K. W. Jeffrey electric generator, one 12-ton Morgan & Gardner mine locomotive, one 10-ton Jeffrey locomotive and five Morgan & Gardner mining machines. During the year there were three inspections made of this mine and three certificates issued.

JOHN WALLACE, Supt.

J. W. SMITH, Mine Boss.

MOUND COAL CO.

No. 82. *Moundsville Shaft*.—This mine is located at Moundsville, ten miles south of Wheeling on the B. & O. R. R., and Ohio River. It is a shaft opening in the No. 8 or Pittsburg vein. The coal is found at this place at a depth of 155 feet. Ventilation is produced by a 15-foot Brazil fan which furnishes a fair amount of ventilation throughout the mine. The mine is developed on the double entry system with 40-foot pillars between entries, and rooms driven 32 feet from center to center, and 24 feet wide. Cross cuts are regularly driven. Mine doors and stoppings were found to be in fairly good repair. The oil used for illuminating purposes was found to be of legal test. The roof of this mine is draw slate and roof coal, which makes a fairly good roof when properly timbered.

Fire damp in small quantities is given off in some of the advanced headings, but in no place in dangerous quantities. The permanent improvements made at this mine during the year just closed are as follows: Two 150 horse power Norwalk compressors, 7 compressed air Puncher mining machines of the Harrison type, and a tail rope haulage of 80 horse power engines.

Special rules have been posted as required by law. Blankets and stretchers are kept on hand at the mine. All suggestions have been complied with. There were three inspections made of this mine during the year and three certificates issued.

JOHN BERRY, Supt.

WILLIAM JOHNSON, Mine Boss.

THOS. PETERS, Fire Boss.

OHIO COUNTY.

JOCHUM & CO.

No. 83. *Central Mine*.—This mine is located within the corporate limits of Wheeling, on the east bank of Wheeling creek. It is a small drift mine in the No. 8 or Pittsburg seam and has worked less than ten men the last year, supplying domestic trade only. Ventilation is

produced by furnaces. I have made no regular report of this mine, but have visited it once and found ventilation and drainage fairly good.

JOHN JOCHUM, Supt. and Mine Boss.

W. H. KASLEY.

No. 84. *Whitaker Mine*.—This mine is located within the corporate limits of Wheeling, on the east bank of Wheeling creek. It is a drift opening in the No. 8 or Pittsburg vein, and supplies fuel for the Whitaker Iron Works. Ventilation is produced by a 10-foot Brazil fan, which furnishes sufficient air properly distributed to all parts of the mine. Scarcely any water is generated, drainage being good throughout the mine. This mine is developed on the double entry system with 30-foot pillars between entries. Rooms are driven 34 feet from center to center and 24 feet wide. The roof of this mine is draw slate and coal, which make a fairly good roof when properly timbered. Rules are posted at the mine as required by law. Stretchers are kept on hand at the mine. All suggestions offered have been adopted.

Three inspections were made of this mine during the year and three certificates issued.

W. H. KASLEY, Supt.

WILLIAM McGRUDER, Mine Boss.

RICHLAND COAL CO.

No. 85. *Richland Mine*.—This mine is located two miles north of Wheeling on the P. C. C. & St. L. R. R., and Ohio River. It is a drift opening in the Pittsburg or No. 8. Ventilation is produced by a 6x4 furnace, which furnishes sufficient air properly distributed throughout all parts of the mine. Mine doors and stoppings were found in good condition. This mine generates very little water, and drainage is good in all parts of the mine. The roof is draw slate and roof coal which makes a fairly good roof when properly timbered. The mine is developed on the double entry system. Oil used for illuminating purposes was found to be of good quality. The incline at this place is 400 feet over which the coal is lowered to the tipple.

This mine has changed hands recently. The new owners have acquired one thousand acres of new territory, and it is the intention to install a modern plant at this place. Special rules have been posted at the mine as required by law. The company keeps on hand at the mine blankets and stretchers. All suggestions offered have been complied with. There were made at this mine during the year three inspections and three certificates were issued to the company.

J. C. McKINLEY, Supt.

JOHN AITKENS, Mine Boss.

ELM GROVE COAL CO.

No. 86. *Elm Grove Shaft*.—This mine is located at Elm Grove, on Wheeling creek and B. & O. R. R. It is a shaft opening in the No. 8 or Pittsburg vein, and the coal is found at the depth of 65 feet. The mine is developed on the double entry system, with 40-foot chain pillars and 75-foot barrier pillars. Cross cuts are regularly driven. Mine doors and stoppings were found in poor repair. Ventilation is produced by a 12-foot force fan of the Brazil type, which furnishes sufficient air when

properly handled. The roof of this mine is draw slate and roof coal, which make a fairly good roof when properly timbered. Explosive gases were found in small quantities in the main north heading of this mine, also in nine and ten right cross headings, but not in dangerous quantities. It was noticed that the roof was broken in several places at the bottom of shaft. The superintendent's attention was called to the matter and a request was made that it be timbered, which is being done. The oil used for illuminating purposes is found to meet the standard requirements. Scarcely any water is generated in the working parts of the mine, and drainage throughout is good. Rules have been posted as required by law. This company does not keep on hand at the mine blankets and stretchers as required by law.

All mechanical appliances in use in and about the mine were found in fairly good condition, with the exception of hoisting cages, which were not equipped with safety catches, and no speaking tube was found in the shaft. All suggestions offered have been adopted with the exception of matter referred to—no safety catches on cage nor speaking tube in shaft.

There were four inspections made of this shaft during the year and four certificates issued to the company.

J. R. CHAMBERS, Supt.

ALEX McGLONE, Mine Boss.

J. E. DEITZ, Fire Boss.

THE REYMANN BREWING CO.

No. 87. *Manchester Mine*.—This mine is located within the corporate limits of Wheeling, on the north bank of Wheeling creek. It is a small drift opening in the No. 8 or Pittsburg vein, which furnishes fuel to the Reymann Brewery. Ventilation is produced by a 6-foot exhaust fan, which furnishes sufficient air for the number of men employed. The drainage is fairly good. The roof of this mine is draw slate and roof coal, which makes a fairly good roof if properly timbered. Cross cuts are regularly driven. Mine doors and stoppings were found in fairly good shape. The oil used for illuminating purposes was found to be of good quality. All suggestions offered have been complied with.

The regular number of inspections were made of this mine during the year and certificates issued.

C. C. SCHMIDT, Supt.

JOHN DONAHUE, Mine Boss.

WHEELING STEAM COAL CO.

No. 88. *McKinley Mine*.—This mine is located one half mile east of Wheeling, on Wheeling creek and Wheeling Terminal R. R. It is a drift opening in the No. 8 or Pittsburg vein. Ventilation is produced by fire basket, which furnishes a fair amount of ventilation properly distributed throughout the mine. The main heading of this mine has been driven through the hill which has greatly benefited the ventilation and drainage. Some trouble was experienced in this mine owing to a squeeze by cutting into old workings of an abandoned mine, which had had a squeeze on at the time of abandonment, which became operative and caused a loss of two entries. Very little loss was sustained, however, as all the coal was worked out on these two entries preparatory to robbing the

pillars. Very little territory remains in the mine to be worked out, and it is only a question of a year or more until the final robbing of the pillars will begin. A good grade of oil is used for illuminating purposes at this place. Rules have been posted as required by law. All suggestions offered have been complied with. Regular inspections of this mine were made during the year and certificates issued.

J. C. McKINLEY, Supt.

PAUL LEONARD, Mine Boss.

LA BELLE IRON WORKS.

No. 89. *La Belle Mine.* This mine is located in the southern part of the city of Wheeling. It is a drift opening in the No. 8 or Pittsburg seam and furnishes fuel for the La Belle Iron Works. This mine has been standing idle for two or three years, but was put in operation about the first of March and worked about one month, then came out on a strike. It has not yet resumed operation. Ventilation is produced by furnace which furnishes a fair amount of air, but it is not well distributed owing to the doors and stoppings being in bad condition. Considerable water is generated in this mine and drainage is bad along main haulage. This mine has been opened up for a long time, and the roof is badly broken along the main haulway, which will require timbering to be made safe.

During the year one inspection was made of this mine and certificate issued.

W. H. TRAVIS, Supt.

RICHARD BLON, Mine Boss.

SECOND DISTRICT.

OFFICE OF THE SECOND DISTRICT MINE INSPECTOR.

CLIFTON, W. V.A., Aug. 22, 1903.

HON. JAMES W. PAUL,
Chief Mine Inspector,
Charleston, W. Va.

SIR:—

I hereby respectfully submit to you for your inspection my annual report of the condition of the mines in the Second District, for the year ending June 30th, 1903.

I am pleased to report that, with very few exceptions, the condition of the mines has been very much improved, especially in regard to ventilation. Three furnaces and twenty fans have been installed, and two small fans have been replaced by larger ones, all of which are giving satisfactory results. The sanitary conditions in the mines in the District with few exceptions are good.

During the year electric plants have been installed at the following mines: Big Otto, K. & H. No. 117, Dry Branch, Oakley, South Carbon, Kayford, Imperial, Black Betsey, Quincy, Black Hawk, West, Morris Creek No. 1 (Elk Coal Co.) and Kanawha (Equitable Coal Co.)

Many new openings have been made in the Second District during the year by the following companies:

ON CABIN CREEK, KANAWHA COUNTY.

The Dry Branch Coal Co.....	3 mines.
Cardiff Coal Co.....	4 mines.
Belle Clare Coal Co.....	1 mine.
Holly Coal Co.....	2 mines.
Red Warrior Coal Co.....	1 Mine.
Cherokee Coal Co.....	1 mine.
Wakeforest Mining Co.....	1 mine.
Leewood Colliery Co.....	2 mines.
Thistle Coal Co.....	1 mine.
Carbon Coal Co.....	2 mines.
Republic Coal Co.....	1 mine.
West Virginia Colliery Co.....	1 mine.
Raccoon Fork Coal Co.....	1 mine.
United Colliery Co.....	1 mine.
Peerless Gas Coal Co.....	1 mine.
Cabin Creek Mining Co.....	2 mines.
Shamrock Coal Co.....	1 mine.

ON PAINT CREEK. KANAWHA COUNTY.

Imperial Colliery Co.....	1 mine.
Greenbrier Coal Co.....	2 mines.

Standard Splint & Gas Coal Co.....	1 mine.
Grose Colliery Co.....	1 mine.

ON KELLYS CREEK, KANAWHA COUNTY.

Kanawha & Hocking C. & C. Co.....	2 mines.
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ON MORRIS CREEK, KANAWHA COUNTY,

Elk Coal Co.....	2 mines.
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ON ELK RIVER, KANAWHA COUNTY.

Clendenin Coal Co.....	1 mine.
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ON LENS CREEK, KANAWHA COUNTY.

Shrewsbury & Edwards.....	1 mine.
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FAYETTE COUNTY.

W. R. Johnson & Co.....	1 mine.
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The following old mines have been reopened: West Mine at Winifrede; K. & H. No. 113 at Longacre.

During the year I made one hundred and eighty inspections of the different mines in this District and frequently visited the mines to inquire into the cause of fatal accidents.

In conclusion I wish to thank the miners and operators for the many courtesies received at their hands, and also to thank you for the able counsel and advice I have received during the year.

Yours very truly,

EARL A. HENRY,

Mine Inspector, Second District, W. Va.

*GENERAL SUMMARY OF THE SECOND DISTRICT FOR THE
YEAR ENDING JUNE 30, 1903.*

COUNTY.	No. of Mine Openings. Total No. of Inspections Made, No. of Written Reports Made.		EMPLOYEES.										PRODUCTION.		
			Inside.					Outside.			No. of Men Killed.	Coal (Tons of 2,240 lbs.)	Coke (Tons of 2,000 lbs.)		
			Pick Miners.	Machine Miners.	Mach. Runners & Helpers.	Laborers.	Total.	Laborers.	Coke Workers.	Total.				Grand Total.	
Kanawha	91	....	87	1,749	1,015	237	987	3,988	698	25	723	4,711	6	1,878,752	25,789
Mason	9	....	17	221	....	....	48	269	37	....	37	306	..	102,282	.....
Putnam	7	....	11	348	20	5	113	486	102	....	102	588	2	178,904	.....
Lincoln	2	....	2	80	....	....	11	91	6	....	6	97	..	53,330	.....
Totals....	109	180	*117	2,398	1,035	242	1,159	4,834	843	25	868	5,702	8	2,213,268	25,789

*Mr. E. A. Henry of the Second District also made 27 written reports of inspections made at 12 mines in Fayette County which are under his inspection.

SECOND MINING DISTRICT.

Earl A. Henry, Inspector.

In addition to the inspections made in his own district, Mr. Henry regularly inspected twelve mines in Fayette county belonging to the Third District.

KANAWHA COUNTY.

FALLING ROCK CANNEL COAL CO.

No. 90. *Jones Mine*.—This is a drift mine located on Falling Rock Branch five miles from Falling Rock station, and connected with the C. C. & S. R. R., by a narrow guage road. The Cannel coal seam is operated, and at this point is 28 inches thick. Developments are conducted on the double entry system. The roof is very good. Entry pillars 30 feet and rooms turned 46 feet from center to center and are 28 feet wide. The mine is properly timbered. Drainage fair. Ventilation is produced by a 12-foot fan which furnishes 30,240 cubic feet of air per minute at the intake, and this is well distributed throughout the mine. All mechanical appliances in use are in good repair. Two inspections were made of this mine during the year and two certificates issued to the company.

H. C. YOUNG, Supt.

I. B. ROSE, Mine Boss.

KEYSTONE COAL CO.

No. 91. *Graham Mines*.—This is a drift mine located on the C. C. & S. R. R., 8 miles from Charleston. The coal at this point measures five feet in thickness, with a slate parting from 3 to 7 inches thick. Developments are conducted on the double entry system. The roof is slate and very good. Entry pillars are 30 feet and rooms turned 50 feet from center to center and driven 28 feet wide. Drainage fair. A new furnace was constructed this year and it gives very fair results. The second opening is maintained in accordance with requirements of the law. All mechanical appliances are in fair condition. During the year three inspections were made of this mine and three certificates issued.

E. P. YOUNG, Supt.

W. W. MATHENY, Mine Boss.

ELK COAL CO.

No. 92. *Queen Shoals Mine*.—This is a drift mine located 24 miles from Charleston on the main line of the C. C. & S. R. R. The seam of coal at this point measures from 3 1-2 to 4 feet in thickness. Developments are on the double entry system. Ventilation is produced by means of a fan which gives fairly good results. Mine doors were found in bad condition, and there was no second opening as required by the State mine law. The attention of the superintendent was called to this and he gave assurance that the matter would be attended to at once. The seam is very much disturbed by rolls throughout the mine which make the cross-cuts in the entries and rooms irregular, and this is a serious draw back to the ventilation. Roof, roads and drainage, are generally good. All mechanical appliances in use inside and outside the mine are substantial and in good repair.

During the year two inspections were made and two certificates issued to the company.

M. BEANE, Supt.

HENRY TUCKER, Mine Boss.

No. 93. *Morris Creek Mine No. 1.*—This is a drift mine located on Morris creek, one mile from the main line of the C. C. & S. R. R. This mine has three separate openings on the south side of Morris creek. The coal seam, which varies in thickness from 30 to 48 inches, is intersected with slate rolls and a considerable area of thin coal. Developments are on the double entry system. Ventilation is natural, and when last inspected was fairly good. Drainage, fair. The roof is slate and very good. This is a new opening and as yet the developments are very small. The tippie is built across the creek to connect with mine No. 2 on the north side. An electric plant has been installed recently at this mine. All mechanical appliances in use are new and substantial.

One inspection was made of this mine during the year and one certificate issued.

HENRY DAVIS, Supt.

JOHN W. GREEN, Mine Boss.

No. 94. *Morris Creek Mine No. 2.*—This is a drift mine located on Morris creek one mile from the main line of the C. C. & S. R. R. The coal at this point varies in thickness from 30 to 48 inches. The seam is very much disturbed by rolls. The mine is developed on the double entry system. The roof is slate and very good, and mine is properly timbered. Drainage, fair. Ventilation is by natural causes, and the results very good at the date of last inspection. This is a new opening operated in connection with mine No. 1. There are two separate openings to this mine which come out level with the tippie floor. The product of mine No. 1 and mine No. 2 is handled over the same tippie. All mechanical appliances are new and substantial. One inspection was made of this mine during the year and certificate issued.

HENRY DAVIS, Supt.

JOHN W. GREEN, Mine Boss.

GLENDENIN COAL CO.

No. 95. *Glendenin Mine.*—This is a drift mine located on the C. C. & S. R. R., 24 1-2 miles from Charleston. It is a new opening and as yet the capacity is small. The coal seam at this point measures from 3 1-2 to 4 feet in thickness, and has a slate roof which is very good. The present system of ventilation is by natural causes and the ventilation is not good. It is the intention of the company to construct a furnace at this mine in the near future. All mechanical appliances are substantial. One inspection was made of this mine during the year and certificate issued.

GEORGE W. GAGHAN, Supt.

CHARLES BEANE, Mine Boss.

GEORGE T. TYLER.

No. 96. *Sycamore Mine.*—This is a drift mine located on the C. C. & S. R. R., 7 miles from Charleston. It is a small mine having small capacity, and is operated on a very cheap scale. The coal at this point measures from 3 1-2 to 4 feet in thickness. The mine has a slate roof which is fairly good. The ventilation is by natural causes and far from satis-

factory. All mechanical appliances are temporary. One inspection of the mine was made during the year and certificate of same issued to the company.

GEORGE T. TYLER, Supt. and Mine Boss.

MILL CREEK CANNEL COAL CO.

No. 97. *Mill Creek Mine*.—This is a drift mine located on Mill creek 9 miles from Charleston, and 4 1-2 miles from the main line of the C. C. & S. R. R. The Cannel coal seam is operated, and at this point measures 4 feet in thickness. Developments are conducted on the double entry system. The mine has a very good roof. Ventilation is produced by a 12-foot fan, which produces 38,000 cubic feet of air per minute, which is fairly distributed throughout the mine. All mechanical appliances are very substantial. There were two inspections made of this mine during the year and certificates issued to the company.

L. W. COUCH, Supt.

W. H. MEASE, Mine Boss.

BLACK HAWK COAL CO.

No. 98. *Black Hawk Mine*.—This is a drift mine located 3 miles south of Charleston on the line of the K. & M. R. R. The Coalburg seam is operated, and at this point measures 5 feet in thickness, including a band of slate 4 inches thick near the middle of the seam, and about 6 inches of bone coal near the roof. Developments are conducted on the double entry system, and ventilation is produced by a 6-foot fan, which does not give satisfactory results owing to the cramped condition of the airways. The roof is principally sandstone and is very good. Roads and drainage are poor. An electric plant has recently been installed at the mine. All mechanical appliances are in fair condition. There were two inspections made of the mine during the year and certificates issued to the company.

J. J. LOVELL, Supt.

J. B. LAWRENCE, Mine Boss.

CAMPBELLS CREEK COAL CO.

No. 99. *Spring Fork Mine*.—This is a drift mine located on the line of the K. & M. R. R., 1 1-2 miles east of Dana station. This mine was worked out and abandoned during the year. One inspection was made during the year.

No. 100. *Calderwood Mine No. 1*.—This is a drift mine located one mile east of Dana station on the K. & M. R. R. The coal at this point measures five feet in thickness with a slate parting near the middle of the seam five inches thick. The main roof is sandstone and slate. In some parts of the mine there are from 6 to 10 inches of draw slate. The principal work at this mine is the robbing of pillars. Ventilation is produced by means of a fan and furnace, which give very good results under the circumstances, as the mine is being rapidly exhausted. The product is hauled by mules, as the company has abandoned the use of mining machines and electric haulage. Stretchers and blankets are kept on hand at the mine as required by law. During the year two inspections were made of this mine and two certificates issued.

J. E. DANA, Supt.

W. B. CALDERWOOD, Mine Boss.

No. 101. *Co-operative Mine*.—This mine is located on Campells creek 12 miles from Dana station. It is a drift opening in the No. 5 seam, which at this point varies in thickness from 4 to 6 feet, including a band of bone, or "nigger head" coal about 6 inches in thickness near the top of the seam. Developments are on the double entry system. There are three openings. The roof is sandstone and slate and is generally good. Entry pillars range from 50 to 60 feet. Rooms are truned 60 feet from center to center and driven from 25 to 30 feet wide. The ventilation is produced by a 10-foot fan which produces 28,000 cubic feet of air per minute at the intake, and this is properly distributed throughout the mine. Cross-cuts are regularly driven. Mine doors and stoppings are all in good condition. All mechanical appliances in use are substantial. Stretchers and blankets are kept at the mine as required by law. There were two inspections made of this mine during the year and two certificates issued.

J. E. DANA, Supt.

W. B. CALDERWOOD, Mine Boss.

NEW DIAMOND COAL CO.

No. 102. *Black Diamond Mine*.—This mine is located on the main line of the K. & M. R. R., 12 miles from Charleston. It is a drift mine. Developments are conducted on the double entry system. The coal at this point measures four feet in thickness. The roof is slate and is fairly good throughout the mine. Ventilation is produced by natural causes and the results are far from satisfactory. The mine produces a great deal of water and has a very poor system of drainage. No improvements were made at this mine during the year. Two inspections were made of the mine during the year and two certificates issued to the company.

ARTHUR ROBINSON, Supt.

JAMES L. ARRINGTON, Mine Boss.

QUINCY COAL CO.

No. 103. *Quincy Mine*.—This mine is located at Quincy on the line of the K. & M. R. R., 13 miles from Charleston. It is a drift mine and the seam worked is the Lewiston, which at this point varies from 3 1-2 to 4 feet in thickness, including a band of bone or "nigger head" coal, varying from 4 to 6 inches near the top of the seam. Developments are conducted on the double entry system. The roof is slate and very good. Entry pillars 40 feet. Rooms turned 50 feet from center to center and driven 35 feet wide. The mine makes very little water. Drainage, fair. Mine doors and stoppings are in fair condition. Ventilation is produced by a furnace which gives fair results when properly attended. About fourteen inches of the floor are taken up to give sufficient height for the mules. This company has recently installed an electric plant. All mechanical appliances are in good repair.

There were two inspections made of this mine during the year and two certificates issued to the company.

WILLIAM DICKINSON, Supt.

B. H. HILL, Mine Boss.

MILE BRANCH COAL CO.

No. 104. *Mile Branch Mine*.—This is a drift mine located at Monarch on the line of the K. & M. R. R., 17 miles from Charleston. The Cedar

Grove seam is operated, and at this point measures 3 feet and 2 inches thick. Developments are conducted on the double entry system. The roof is slate and is very good, except from 4 to 6 inches of draw slate which has to be taken down in some sections of the mine. Entry pillars are 40 feet. Rooms turned 50 feet from center to center and driven 35 feet wide. About 15 inches of the floor is taken up to give sufficient height for the mules. There are two distinct openings at this mine, and a 7-foot fan is installed at each, and as a result the mine is well ventilated. Drainage is fair. Mine doors and stoppings are in good repair. Stretchers and blankets are kept on hand at the mine as required by law. There were two inspections made of this mine during the year and two certificates issued to the company.

JOHN E. NORVELL, Supt.

ROBERT SNEAD, Mine Boss.

KANAWHA & HOCKING C. & C. CO.

No. 105. *K. & H. Mine No. 101.*—This is a drift mine located at Shrewbury on the line of the K. & M. R. R., 16 miles from Charleston. The No. 5 seam is worked, which varies at this point from 5 to 6 feet in thickness. Developments are conducted on the double entry system. The roof of the mine is slate which in some sections of the mine is very good, and in others bad. The ventilation is by natural causes and is fairly good, there being several openings near the working places. The mine is very wet in some sections, as the coal is very near the top of the mountain. Drainage is fairly good. A great many of improvements have been made at this mine during the year. An electric plant has been installed, the incline and main haulways have been relaid with 56-pound steel rails, an electric haulage installed in the mine and a new tippie constructed at the railroad and river. Stretchers and blankets are kept on hand at the mine as required by law. There were two inspections made of this mine during the year and certificates issued to the company.

JOHN W. TAYLOR, Supt.

JAMES KENNEDY, Mine Boss.

No. 106. *K. & H. Mine No. 103.*—This mine is located on the Kellys creek branch of the K. & M. R. R., 19 miles from Charleston. It is a drift mine operating the Cedar Grove seam which at this point measures from 31 to 36 inches. Developments are on the double entry system and the mine has an excellent slate roof. Ventilation is produced by a 7-foot fan which gives good results. The mine is properly timbered and drainage is fair. Mine doors and stoppings are in bad condition. An electric plant was installed during the year, and the mine has been recently wired for electric haulage. Rules are posted, and stretchers and blankets kept at the mine according to law. All mechanical appliances in moderate condition only. There were two inspections made of this mine during the year and two certificates issued to the company.

JOHN W. TAYLOR, Supt.

WALTER CUTHBERTSON, Mine Boss.

No. 107. *K. & H. Mine No. 104.*—This mine is located on Kellys creek branch of the K. & M. R. R., 19 miles from Charleston. It is a drift mine opening into the Cedar Grove seam which at this point varies in thickness from 30 to 36 inches. Developments are conducted on the double entry system. The mine has an excellent roof. It is ventilated

by a 7-foot fan with very poor results, this being due to the bad condition of the mine doors and stoppings. This mine is operated in connection with mine No. 103, the same tippie being used to handle the product of both mines. There were two inspections made of this mine during the year and certificate furnished the company.

JOHN W. TAYLOR Supt.

WALTER CUTHBERTSON, Mine Boss.

No. 108. *K. & H. Mine No. 105.*—This is a drift mine located on the Kellys creek branch of the K. & M. R. R. The Coalburg seam is operated which at this point varies in thickness from 4 1-2 to 5 feet. This mine is worked on the double entry system. The roof is sandstone and slate and very good. Entry pillars are 30 to 40 feet. Rooms are turned 50 feet from center to center and driven 30 feet wide. The ventilation is produced by a 6-foot fan which gives fairly good results. Mine is properly timbered and haulways in fair condition. Oil used in the mine is legal test and up to the standard. The second opening comes up to the requirements. Stretchers are kept on hand as required by law. This opening was abandoned May 18th, as developments can be conducted to better advantage from the new opening on the lease known as Mine No. 105X. Two inspections were made of this mine during the year and certificates issued to the company.

JOHN W. TAYLOR, Supt.

HARRY TAYLOR, Mine Boss.

No 109. *K. & H. Mine No. 105X.*—This mine is located on Kellys creek branch of the K. & M. R. R., 26 miles from Charleston. This is a drift mine and the Coalburg seam is operated which at this point measures 6 1-2 feet including a band of bone, or "nigger head" coal about 4 inches in thickness. The mine is worked on the double entry system. The roof is slate and very good. Entry pillars are 30 feet. Rooms turned 55 feet from center to center and driven 30 feet wide. Ventilation is produced by a 6 foot fan with very good results. The mine is practically dry. Drainage, fair. Mine doors and stoppings are in first class condition. Cross-cuts are regularly driven. The mine is carefully attended and properly timbered. All mechanical appliances in use are new and substantial. Stretchers and blankets are kept on hand and special rules are posted. The mine boss takes a great deal of pride in keeping everything inside the mine in first class condition. This mine will be known in the future as Mine No. 105.

JOHN W. TAYLOR, Supt.

HARRY TAYLOR, Mine Boss.

No. 110. *K. & H. Mine No. 106.*—This is a drift mine located on Kelly's creek branch of the K. & M. R. R., 26 miles from Charleston. The coal mined is known as the No. 5 seam, and at this point varies in thickness from 5 to 6 feet including a band of bone, or "nigger head" coal about 3 inches in thickness. The developments are all conducted on the double entry system. The roof is of slate and very good at all points, except 6 to 8 inches of draw slate which has to be taken down in some places. Entry pillars are 40 feet. Rooms turned 50 feet from center to center and driven 28 to 36 feet wide. Ventilation is produced by a 5-foot fan, which does not give very good results, this being due to the bad condition of mine doors and stoppings. Mechanical appliances are in moderate condition only. Drainage in fair condition. A letter was addressed to the superintendent of the mines calling his attention to the deficiency in

ventilation. Special rules are posted and stretchers are kept on hand as required by law. There were two inspections made of this mine during the year and certificates issued to the company.

JOHN W. TAYLOR, Supt.

WILLIAM GRIMES, Mine Boss.

No 111. *K & H. Mine No. 108.*—This mine is located on the Kellys creek branch of the K. & M. R. R., 27 miles from Charleston. It is a drift opening into the Coalburg seam which at this point measures from 5 to 5 1-2 feet in thickness, including two slate partings about inches thick. Developments are conducted on the double entry system. The roof is of slate and very good. Entry pillars are 50 feet. Rooms are turned 50 feet from center to center and are driven 50 feet wide. Mine doors and stoppings are in fair condition. The ventilation is produced by a 5-foot fan which furnishes 16,000 cubic feet per minute at the intake, and this is properly distributed throughout the mine. All mechanical appliances are in good repair. The mine is practically dry. Special rules are posted and stretchers are kept on hand at the mine as required by law. There were two inspections made of this mine during the year and certificate issued to the company.

JOHN W. TAYLOR, Supt.

H. J. WILLS, Mine Boss.

No. 112. *K. & H. Mine No. 108 West.*—This mine is located on Kellys creek branch of the K. & M. R. R., 27 miles from Charleston. It is a drift opening into the Coalburg seam which measures 5 feet at this point, including two slate partings about 4 inches in thickness. The workings of this mine are on the double entry system. Entry pillars are 34 feet, rooms 50 feet from center to center and worked 30 feet wide. The roof is fairly good, except 6 inches of draw slate which has to be taken down. Ventilation is by natural causes and gives very poor ventilation. A letter was addressed to the superintendent of this mine calling his attention to the deficiency in ventilation, with the request that it be remedied. The mine is practically dry. Stretchers are kept on hand and special rules are posted. This is a new opening and is operated in connection with mine No. 108. One inspection was made of the mine during the year and certificate issued to the company.

JOHN W. TAYLOR, Supt.

H. J. WILLS, Mine Boss.

No. 113. *K & H. Mine No. 109.*—This is a drift mine located on Kellys creek branch of the K. & M. R. R., 27 miles from Charleston. The No. 5 seam is operated, and at this point varies in thickness from 5 to 6 feet, including a slate band about 9 inches thick. The workings of this mine are on the double entry system. The roof is of slate and sandstone and is very good. Mine doors and stoppings are in good repair. Entry pillars are 30 feet, rooms turned 59 feet from center to center and driven 30 to 35 feet wide. Mine doors and stoppings are in good repair. Haulways are in good condition and kept clean of side obstructions. Crosscuts are regularly driven. An exhaust fan is installed which furnishes sufficient air for the proper ventilation of the mine. Oil used for illuminating purposes is up to the standard. Stretchers are kept on hand and rules are posted. All mechanical appliances are in good repair. There were two inspections made of this mine during the year and certificates issued to the company.

JOHN W. TAYLOR, Supt.

G. W. COYLE, Mine Boss.

No. 114. *K. & H. Mine No. 110.*—This is a drift mine located at River-side on the K. & M. R. R., 21 miles from Charleston. The Cedar Grove seam is operated, and at this point measures from 31 to 36 inches in thickness. Developments are on the double entry system. The roof is slate and very good. Ventilation is produced by a 10-foot fan which gives fair results. Mine doors and stoppings are in bad condition. Drainage is fair. Oil used for illuminating purposes is up to the standard. Stretchers are kept on hand. The second opening comes up to the requirements, and all mechanical appliances used outside the mine are substantial and in good repair. There were two inspections made of the mine during the year and certificates issued to the company.

JOHN W. TAYLOR, Supt.

C. E. ALLEN, Mine Boss.

No. 115. *Kanawha & Hocking Mine No. 119.*—This mine is located at Cedar Grove on the K. & M. R. R., 19 miles from Charleston. It is a drift opening into the No. 5 seam which at this point varies in thickness from 4 1-2 to 6 feet, including a band of rock about 2 inches thick and about 3 inches of bone or "nigger head" coal. The workings of this mine are conducted on the double entry system. Ventilation is produced by natural causes and is fairly good, there being several openings near the working places. The roof is of slate and sandstone. The part which is slate is very dangerous and has to be well timbered in order to insure safety. The mines are well supplied with timber. Oil used in the mine for illuminating purposes is up to the standard. All mechanical appliances used are in fairly good condition. There were two inspections made of this mine during the year and certificates issued to the company.

JOHN W. TAYLOR, Supt.

P. F. NEYLAN, Mine Boss.

CANNELTON COAL CO.

No. 116. *Cannelton Mine No. 2.*—This is a drift mine located on Smithers creek, 28 miles from Charleston. The seam worked is the No. 2 Gas Coal, and at this point varies in thickness from 6 feet to 7 feet 10 inches, including a slate band which varies in thickness from 2 to 5 inches. Developments are on the double entry system. The roof is of slate and is very good. Entry pillars are 60 feet, rooms turned 60 feet from center to center and driven 26 feet wide. The mine makes very little water and the drainage is fairly good. The mine is properly timbered and the roadways, mine doors and stoppings are in excellent condition. Cross-cuts are regularly driven. Ventilation is produced by a 10-foot fan which furnishes 32,000 cubic feet of air per minute at the intake, and this is properly distributed throughout the mine. Oil used for illuminating purposes is up to the standard. All mechanical appliances in use in and about the mine are in good condition. This company takes a great deal of pride in keeping everything, both inside and outside the mine, in good condition. There were two inspections made of the mine during the year and certificates issued to the company.

LANGDON LEA, Supt.

JAMES DEVENNEY, Mine Boss.

SHREWSBURY & EDWARDS.

No. 117. *Shrewsbury Mine.*—This is a drift mine located on Lens creek

1 1-2 miles from Marmet. The coal at this point varies in thickness from 39 to 48 inches, including a band of slate about 3 inches thick near the middle of the seam. The roof is slate and fairly good. Drainage only fair, this being a new mine and not sufficiently developed to determine the best methods of drainage. The mine is properly timbered. Ventilation is by natural causes, and at last inspection was fairly good. All mechanical appliances in use are only temporary. One inspection was made of this mine during the year.

J. H. SHREWSBURY, Supt.

D. S. STONE, Mine Boss.

THE MARMET CO.

No. 118. *Lens Creek Mine.*—This is a drift mine located on Lens Creek on the W. Va. Southern R. R., 5 miles from Marmet. The coal varies in thickness from 36 to 48 inches. The workings are on the double entry system. Roof is slate and very good. Slate from 12 to 18 inches is shot down to give sufficient height for the mules. Entry pillars are 40 feet, and rooms 50 feet from center to center. This mine makes very little water. Mine doors and stoppings are in fairly good condition. Ventilation is produced by a furnace which does not give good results. The oil used in the mine is legal test and up to the standard. Stretchers and blankets are kept on hand as required by law. The second opening come up to the requirements. All mechanical appliances in use outside the mine are substantial and in good repair. Two inspections were made of this mine during the year and two certificates issued.

L. W. ATKINSON, Supt.

JOSEPH POWERS, Mine Boss.

No. 119. *Butler & Low Mine.*—This is a drift mine located on Lens creek on the W. Va. Southern Railroad, 4 miles from Marmet. The Winifrede seam is worked, and varies at this point from 5 to 7 feet in thickness, with a slate parting from 5 to 10 inches thick. Developments are conducted on the double entry system. The roof is sandstone and very good. Entry pillars are 40 feet, rooms turned 50 feet from center to center and driven 30 feet wide. Very little water is generated in this mine. Mine doors, stoppings and drainage are generally good. Ventilation is produced by a 7-foot fan which furnishes 21,000 cubic feet of air per minute at the intake, which is well distributed throughout the mine. Cross-cuts are regularly driven, and the haulways kept clean from side obstruction. The second opening comes up to the requirements of law. The tiple in use is only temporary. Two inspections were made of this mine during the year and certificates issued.

L. W. ATKINSON, Supt.

W. M. BOWEN, Mine Boss.

WINIFREDE COAL CO.

No. 120. *Winifrede Gas Mine.*—This mine is located near Winifrede on the Winifrede Railroad. It is a drift opening into the Peerless seam which at this point varies in thickness from 28 to 34 inches. Developments are conducted on the double entry system. The roof is hard slate and very good. Ventilation is produced by a furnace which gives sufficient air for the number of men employed. Drainage, roadways, mine doors and stoppings, are in good condition. Cross-cuts are regularly driven. The oil

used is of legal test and up to the standard. Two inspections were made of this mine during the year and two certificates issued.

R. B. CASSADY, Supt.

M. F. SPRUCE, Mine Boss.

No. 121. *South Mine*.—This mine is located at Winifrede on the Winifrede Railroad. It is a drift opening into the Winifrede seam which at this place varies in thickness from 5 1-2 to 8 feet, with a slate parting near the middle of the seam which varies in thickness from 4 to 12 inches. Workings are carried on at this mine on the double entry system. The roof is slate, and in some sections is bad. Entry pillars are from 30 to 40 feet, rooms turned from 45 to 50 feet from center to center and driven 30 feet wide. The miners are well supplied with timber and the mine is properly timbered throughout. Ventilation is produced by a 10-foot fan, which gives satisfactory results when the mine doors and stoppings are kept in good repair. Cross-cuts are regularly driven and the haulways kept clear of side obstructions. The second opening comes up to the requirements of law, and rules are posted and stretchers kept on hand at the mine. A rope haulage plant is successfully operated at this mine, which is the largest development in the Second Mining District and is well conducted. All mechanical appliances in use, inside and outside the mine, are substantial and in good repair. Two inspections were made of this mine during the year and certificates issued the company.

R. B. CASSADY, Supt.

M. F. SPRUCE, Mine Boss.

No. 122. *North Pick Mine*.—This mine is located at Winifrede on the Winifrede Railroad. It is a drift opening into the Winifrede seam which at this place varies in thickness from 5 to 6 feet, including a slate parting near the middle of the seam which varies in thickness from 4 to 6 inches. The workings at this mine are carried on on the double entry system. The roof is slate and is fairly good, with the exception of some sections where it is faulty. Entry pillars are from 30 to 40 feet, rooms turned 45 feet from center to center and driven 30 feet wide. Ventilation is produced by a 10-foot fan, which gives 35,000 cubic feet of air per minute at the intake and it is fairly distributed throughout the mine. Drainage, mine doors, stoppings and haulage are in fair condition. Cross-cuts are regularly driven. Stretchers and blankets are kept on hand at the mine as required by law. All mechanical appliances are in good repair. The electric plant supplying the power to operate the motor and machines is installed near the tibble. Two inspections were made of this mine during the year and two certificates issued to the company.

R. B. CASSADY, Supt.

M. F. SPRUCE, Mine Boss.

No. 123. *North Machine Mine*.—This is a drift mine located at Winifrede on the Winifrede Railroad. The Winifrede seam is operated and the coal at this point varies in thickness from 4 to 5 feet. The workings of the mine are conducted on the double entry system with 30 foot pillars between entries. Rooms are turned 45 feet from center to center and driven 30 feet wide. The ventilation is produced by a 6-foot fan, which furnishes 18,000 cubic feet of air per minute which is fairly distributed throughout the mine. The haulways are kept clear of side obstructions with sufficient room to pass the cars. The mine makes very little water. Drainage is fairly good. Cross-cuts are regularly driven. Mine

doors and stoppings are in fairly good condition. The roof is hard slate and very good. Oil used is legal test and up to the standard. The mechanical appliances are in good repair. Stretchers and blankets are kept as required by law. Two inspections were made during the year of this mine and certificates issued.

R. B. CASSADY, Supt.

M. F. SPRUCE, Mine Boss.

No. 124. *West Mine*.—This is a drift mine located at Winifrede on the Winifrede Railroad. It is an old mine which has been idle for the past eight years, but has been re-opened recently by the above named company. The Winifrede seam is mined, and at this point measures from 3 1-2 to 5 feet in thickness, with a band of slate near the middle about 8 inches thick. Developments are on the double entry system. Entry pillars are 40 feet, rooms 45 feet from center to center and worked 30 feet wide. The roof is slate and fairly good, except eight inches of draw slate that has to be taken down in some sections of the mine. Ventilation is produced by an exhaust fan which furnishes sufficient air and is properly distributed throughout the mine. Drainage is fair. Mine doors and stoppings are in fairly good condition and the haulways are clear from side obstructions. There has been a great many improvements made at this mine, an electric plant having been installed, a new tippie constructed, and 2,000 feet of the main haulway re-laid with 56-pound steel rails. All mechanical appliances are new and substantial. One inspection was made during the year of this mine.

R. B. CASSADY, Supt.

M. F. SPRUCE, Mine Boss.

COALBURG COLLIERY CO.

No. 125. *Ronda Mine*.—This mine is located on the Cabin creek branch of the C. & O. Railway, 5 miles from Coalburg. The Coalburg seam is operated at this mine and at this point varies in thickness from 5 1-2 to 7 feet, including a bone or "nigger head" coal about 10 inches thick. Developments are on the double and single entry systems. The roof of the mine is slate of a very uncertain and dangerous nature, and has to be carefully timbered in order to insure safety. Ventilation is produced by a small furnace which gives very poor results, there being practically no circulation of air in the working places. The superintendent's attention was called to the deficiency in the ventilation, with the request that it be remedied. The miners are well supplied with timber and the working places are well timbered. Drainage is fair. Mine doors and stoppings are in fairly good condition. Oil used in the mine for illuminating purposes is up to the standard. All mechanical appliances in use on the outside of the mine are in good repair.

W. E. NUGEN, Supt.

J. E. BURKE, Mine Boss.

STEVENS COAL CO..

No. 126. *Acme Mine*.—This is a drift mine located on the Cabin creek branch of the C. & O. Railway, 15 miles from Coalburg. The coal mined is known as the Coalburg seam. The workings of the mine are on the double entry system. Pillars between entries are 35 to 40 feet and rooms are turned 50 feet from center to center. The roof is slate, and with the

exception of about 6 inches of draw slate, it is very good in the rooms. In some sections of the mine it cuts on the entries and has to be carefully propped. The mine is fairly well timbered and the haulways in fair condition. Mine doors and stoppings are in fair condition. This mine generates very little water. All mechanical appliances in use are substantial and in good condition. The oil is legal test and comes up to the standard. Stretchers are kept on hand as required by law. Two inspections were made of this mine during the year and certificates issued.

E. H. SHONK, Supt.

MIKE FOSTER, Mine Boss.

No. 127. *Keystone Mine*.—This is a drift mine located on the Cabin creek branch of the C. & O. Railway, 15 miles from Coalburg. The No. 2 Gas seam is operated, and at this point measures from 5 1-2 to 6 feet in thickness. Developments are conducted on the double entry system. Entry pillars are 35 feet, rooms 50 feet from center to center and driven 26 feet wide. The roof is hard slate and very good. The mine is properly timbered and the haulways are in good condition. Mine doors and stoppings are in fairly good repair, and drainage good. Ventilation is produced by an exhaust fan which gives sufficient air, and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine are in good repair. Oil used is up to the standard. Stretchers are kept on hand as required by law. A great deal of pride is taken in keeping this mine in first class condition. There were two inspections made during the year of this mine and certificates issued.

E. H. SHONK, Supt.

J. S. HOLMES, Mine Boss.

No. 128. *Empire Mine*.—This mine is located on the Cabin creek branch of the C. & O. Railway, 14 miles from Coalburg. It is a drift opening into the No. 2 Gas seam which at this point measures from 5 to 6 feet in thickness. The workings of this mine are on the double entry system. Entry pillars 48 to 50 feet. Rooms turned 50 feet from center to center and driven 26 feet wide. The roof is slate, and fairly good, except some sections of the mine where the draw slate is from 3 to 10 inches in thickness. Ventilation is produced by a 7-foot fan which gives very good results. The mine is well timbered and drainage fair. The second opening comes up to the requirements of law. Cross-cuts are regularly driven. Mine doors and stoppings are in bad condition. An electric haulage has been recently installed and the haulways are in fair condition. Oil used is legal test and up to the standard. Mechanical appliances for handling the coal are substantial and in good repair.

Two inspections were made of the mine during the year and two certificates issued.

E. H. SHONK, Supt.

W. H. MORRIS, Mine Boss.

SHAMROCK COAL CO.

No. 128A. *Shamrock Mine*.—This company is making preparations to open a mine but at this date has shipped no coal.

DRY BRANCH COAL CO.

No. 129. *Dry Branch Mines Nos. 1, 2 & 3*.—These are drift mines located on Cabin creek branch of the C. & O. Railway, two miles from

Coalburg. The seams being developed are the Peerless, Coalburg and Belmont. At mine No. 1 the Peerless seam is mined. At this point the coal measures 42 inches in thickness, including a band of slate about 8 inches from the floor of the seam and about 2 inches thick. Developments are conducted on the double entry system. Entry pillars are 35 feet. Rooms 45 feet from center to center and driven 24 feet wide. The floor is taken up to make sufficient height for the mules. Ventilation is by natural causes.

At mine No. 2 the Coalburg seam is operated and at this point measures from 6 to 7 feet, including a band of slate near the middle of the seam, which varies in thickness from 10 to 14 inches, also a band of bone or "nigger head" coal about 8 inches in thickness near the top of the seam. The mine is developed on the double entry system. The roof is slate and is very good. Entry pillars are 30 feet and rooms are turned 50 feet from center to center and driven 30 feet wide. Ventilation is by natural causes.

At mine No. 3 the Belmont seam is operated and measures 4 1-2 feet in thickness. Developments are on the double entry system. Entry pillars are 35 feet. Rooms turned 50 feet from center to center and driven 20 feet wide. The roof is slate and fairly good, except 10 to 12 inches of draw slate that has to be taken down. Ventilation is by natural causes.

Mr. Lewis, the superintendent, gave assurance that a fan would be installed at each of the above mines in the near future. These mines have been opened recently, and as yet the developments are small. A new tippie has been completed and an electric plant installed. All mechanical appliances in use are new and substantial. There was one inspection made of these mines during the year and certificate issued to the company.

RICHARD LEWIS, Supt.

ROBERT M. ODELL, Mine Boss.

BELLE CLARE COAL CO.

No. 130. *Belle Clare Mine.*—This is a drift mine located on Cabin creek branch of the C. & O. Railway, 17 miles from Coalburg. The seam worked is known as the No. 2 Gas and varies in thickness from 5 to 6 feet, including in some sections of the mine, a slate band varying in thickness from 4 to 10 inches. Developments are on the double entry system. The roof is hard slate and good. Entry pillars are from 40 to 60 feet. Rooms are turned 60 feet from center to center and worked 26 feet wide. Haulways and drainage are in fair condition. Ventilation is produced by natural causes which are sufficient, as there are only a small force of men employed in this mine. This is a new mine but recently opened, and as yet the developments are small. The mechanical appliances are only temporary. A new tippie and incline are now being constructed and the machinery is on the ground to install an electric plant. The incline will be equipped with two boiler shaped monitors having a capacity of 6 tons each, which dump automatically into a bin at the foot of the incline. One inspection was made of this mine during the year.

FRED C. PRICHARD, Supt.

W. R. JONES, Mines Boss.

CARDIFF COAL CO.

No. 131. *Oakley Mine.*—This mine is located on the Cabin Creek branch of

the C. & O. Railway, 7 miles from Coalburg. It is a drift opening into the Lewiston seam, which, at this point, measures from 3 1-2 to 4 1-2 feet in thickness, including two bands of impurities, one being of slate 2 inches thick, and the other of "nigger head" 4 inches thick. Developments are on the double entry system. The roof is slate and very good throughout the mine. Entry pillars are 36 to 40 feet. Rooms turned 50 feet from center to center and driven 30 feet wide. Drainage is fair. Ventilation is produced by a 7-foot fan which gives satisfactory results. There are three separate openings 2,000 feet north of the drum house; reached by a tram road along the face of the mountain. The tippie arrangements are very substantial. An electric plant has been installed recently. Mechanical appliances are new and substantial. One inspection was made of the mine during the year.

EDWARD HOPE, Supt.

ROBERT THOMPSON, Mine Boss.

HOLLY COAL CO.

No. 131D. *Holly Mine*.—This is a drift mine located on the Cabin Creek branch of the C. & O. Railway 12 miles from Coalburg. The No. 2 Gas seam is operated, and at this point measures 5 feet in thickness. The mine is dry and has an excellent slate roof. The developments are conducted on the double entry system. Ventilation is produced by natural causes, which give sufficient air for the number of men employed. This mine has been opened recently and as yet the developments are small. The Aultman conveyors are used with good results, dispensing with the incline. All mechanical appliances in use are new and substantial. One inspection was made of this mine during the year.

J. L. DAVIS, Supt.

W. H. BRADLEY, Mine Boss.

RED WARRIOR COAL CO.

No. 131F. *Red Warrior Mine*.—This mine is located on the Cabin Creek branch of the C. & O. Railway, 13 miles from Coalburg. It is a drift opening into the No. 2 Gas seam, which at this point measures from 5 to 6 feet in thickness. Developments will be conducted on the double entry system. The mine has been opened only recently and as yet the developments are small. The tippie used is only temporary. The mine is very dry and has an excellent slate roof. Preparations are being made to construct a new tippie and install an electric plant. One inspection was made of this mine during the year.

L. LONG, Supt.

R. C. CLARK, Mine Boss.

CHEROKEE COAL CO.

No. 132. *Cherokee Mine*.—This is a drift mine located on the Cabin Creek branch of the C. & O. Railway, 12 miles from Coalburg. The No. 2 Gas seam is operated, and at this place measures from 4 1-2 to 5 1-2 feet in thickness, including, in some sections of the mine a slate band varying in thickness from 4 to 14 inches. Developments are conducted on the double entry system. The roof is slate and, apart from a band of draw slate varying in thickness from 4 to 10 inches which has to be taken down in some sections, is very good. There are three separate openings, each having a temporary furnace for ventilation purposes, which give fair results. Mine doors and stoppings are in fair condition. Drainage, fair. All

mechanical appliances in use outside the mine are in good repair. One inspection was made of this mine during the year.

J. C. GILMORE, Supt.

THOMAS GOSNEY, Mine Boss.

WAKEFOREST MINING CO.

No. 133. *Wakeforest Mine*.—This mine is located on the Cabin Creek branch of the C. & O. Railway, 15 miles from Coalburg. It is a drift opening into the No. 2 Gas seam, which, at this point measures from 5 to 6 feet in thickness. The mine is practically dry and has an excellent sandstone roof. The workings of this mine are conducted on the double entry system. Ventilation is produced by natural causes with only fair results. The Superintendent gave assurances that a fan or furnace would be installed at this mine in the near future. Mine doors and stoppings are in good repair. The second opening comes up to the requirements. Oil used in the mine is legal test and up to the standard. Stretchers are kept on hand as required by law. All mechanical appliances in use are new and substantial. There was one inspection made of this mine during the year and certificate issued to the company.

J. C. GRYMES, Supt.

R B COBB, Mine Boss.

LEEWOOD COLLIERY CO.

No. 134. *Leewood Mine No. 1*.—This mine is a drift mine located on the Cabin Creek branch of the C. & O. Railway, 11 miles from Coalburg. The No. 2 Gas seam is operated, and at this point measures from 3 1-2 to 4 feet, including a slate band varying in thickness from 2 to 4 inches. There are five separate openings at this mine, each having a small furnace and stack for ventilating purposes. Developments are conducted on the double entry system. The roof is slate and fairly good. They shoot down from 12 to 18 inches of slate on the entries to make sufficient height for the mules. Entry pillars are 60 feet, and rooms 80 feet from center to center and worked 40 feet wide, there being double tracks in the rooms. Ventilation, roads and drainage are in fair condition. The mine is properly timbered. The tipple in use is only temporary. One inspection was made of this mine during the year and certificate issued to the Company.

ROBERT CAMM, Supt.

CHARLES WHITNEY, Mine Boss.

THISTLE COAL CO.

No. 135. *Thistle Mine*.—This is a drift mine located on the Cabin Creek branch of the C. & O. Railway, 16 miles from Coalburg. The No. 2 Gas seam is operated, and at this point measures 5 feet in thickness. Developments are on the double entry system. Entry pillars are 40 feet. Rooms 50 feet from center to center and driven 25 feet wide. The roof is slate and very good. The mine is practically dry. Ventilation is produced by a temporary furnace, which gives sufficient air for the number of men employed. This mine was recently opened and at the present time the capacity is small. All mechanical appliances are new and substantial. One inspection was made of this mine during the year.

THOMAS A. KAY, Supt.

WILLIAM YOUNG, Mine Boss.

CARBON COAL CO.

No. 136. *South Carbon Mine*.—These are drift openings located on the Cabin Creek branch of the C. & O. Railway, 18 miles from Coalburg. The

coal mined is the No. 2 Gas seam, which measures at this point from 5 to 6 feet in thickness. The roof is slate and very good. Developments are on the double entry system. Entry pillars are 40 feet. Rooms 75 feet from center to center and driven 27 feet wide. The mine is practically dry and mine doors and stoppings are in good condition. Cross-cuts are regularly driven. There are eight distinct openings—double entry system—each pair of openings being ventilated separately. Three 7 foot fans have been installed, which give sufficient ventilation for present developments. The Superintendent gave assurance that, when necessary, additional fans would be installed. Oil used for illuminating purposes in the mine is up to the standard. The product of the several openings is handled over the same tipple. A complete electric plant has been installed recently at this mine, and all mechanical appliances in use are new and substantial. These mines were inspected once during the year.

CHARLES A. CABELL, Supt.

OWEN MEADOWS, Mine Boss.

WEST VIRGINIA COLLIERY CO.

No. 137. *West Virginia Mine No. 1.*—This mine is located on the Cabin Creek branch of the C. & O. Railway, 17 miles from Coalburg. The coal mined is the No. 2 Gas seam, and at this point it measures from 5 to 6 feet in thickness. The roof is slate and very good. The mine is practically dry. It is developed by a tram road 2,600 feet in length along the face of the mountain. There are three pairs of entries and 25 rooms all opened from the out-crop. The mine is well timbered. Ventilation is natural and under the existing conditions is very good. Cross-cuts are regularly driven and haulways in good condition. Oil used in the mine is legal test and up to the standard. An electrical plant has recently been installed, and all mechanical appliances are new and substantial. One inspection was made during the year and certificate issued to the company.

JOHN HOLMES, Supt.

GEORGE BUCKLEY, Mine Boss.

RACCOON FORK COAL CO.

No. 138. *Raccoon Mine.*—This is a drift mine located on the Cabin Creek branch of the Chesapeake & Ohio Railway, 17 miles from Coalburg. The coal mined is the No. 2 Gas seam, which varies in thickness from 4 to 5 1-2 feet. Developments are conducted on the double entry system. The roof is slate and sandstone, and is very good, except in some sections where there is a band of draw slate from 4 to 8 inches thick. Entry pillars from 30 to 40 feet. Rooms are 50 feet from center to center and driven 25 feet wide. The mine is practically dry. There are three separate openings, each of which is ventilated by a temporary furnace with fair results. Cross-cuts are regularly driven. Mine doors and stoppings are in good repair. Oil used in the mine for illuminating purposes is legal test and up to the standard. The tipple used is only temporary, but arrangements are being made to construct an up to date tipple. A new fan is on the ground and will be installed in the near future. One certificate was issued to the Company during the year.

JAMES KAY, Supt.

GEORGE W. EASTHAM, Mine Boss.

UNITED COLLIERY CO.

No. 139. *United Mine.*—This is a drift mine located on the Cabin Creek

branch of the C. & O. Railway, 18 miles from Coalburg. The No. 2 Gas seam is mined, and at this point averages 5 feet in thickness. Developments are conducted on the double entry system. Entry pillars are 40 to 50 feet and rooms 55 feet from center to center which are driven 28 feet wide. The roof is slate and is fairly good. The drainage is good with the exception of the main heading. Ventilation is produced by means of a temporary furnace, which gives fair results. Cross-cuts are regularly driven. Mine doors and stoppings are in fair condition. The tippie in use, is only temporary, but a new one is under construction, and a new fan is on the ground, which will be installed in the near future. This is a new opening and as yet the developments are small. One inspection was made of this mine during the year and one certificate issued to the Company.

CHARLES A. CABELL, Supt.

D. S. HOLMES, Mine Boss.

CABIN CREEK MINING CO.

No. 140. *Kayford Mine No. 1.*—This is a drift mine located on the Cabin Creek branch of the C. & O. R. R., 17 miles from Coalburg. The No. 2 Gas seam is operated, and at this point measures 6 feet in thickness. Developments are conducted on the double and triple entry system. The roof is slate and is excellent. Entry pillars are 25 to 30 feet. Rooms 60 feet from center to center and driven 27 feet wide. The mine is properly timbered throughout, and the haulways kept clean from side obstructions. Ventilation is produced by a ten foot fan which furnishes 32,000 cubic feet of air per minute at intake, and this is properly distributed throughout the mine. The stoppings and overcasts are in excellent condition, no doors being used at present. Oil used in the mine for illuminating purposes is up to the standard. The mine makes very little water. Drainage is good. An electric plant is installed at the mine. The tippie in use is only temporary, but preparations are being made to construct a new and up to date tippie. One inspection was made of this mine during the year and one certificate issued to the company.

JAMES KAY, Supt.

JOHN EASTHAM, Mine Boss.

No. 141. *Kayford Mine No. 2.*—This is a slope mine located on Cabin Creek branch of the C. & O. Railway, 17 miles from Coalburg. The No. 2 Gas seam is operated, and at this point measures from 5 1-2 to 6 1-2 feet. The workings of this mine are on the double entry system. Entry pillars are 25 to 30 feet. Rooms turned 60 feet from center to center and driven 29 feet wide. The mine is properly timbered. Drainage fair. The roof is slate and very good. Cross-cuts are regularly driven. Mine doors and stoppings are in good repair. The oil used in the mine for illuminating purposes is legal test and up to the standard. The second opening comes up to the requirements. This mine has been connected recently with mine No. 1, and both mines are ventilated by one fan. The product of the two mines is handled over one tippie. One inspection was made of this mine during the year and one certificate issued.

JAMES KAY, Supt.

JOHN EASTHAM, Mine Boss.

No. 142. *Kayford Mine No. 3.*—This is a slope mine located on Cabin Creek branch of the C. & O. Railway, 17 miles from Coalburg. The No. 2 Gas seam is operated, and at this point varies in thickness from 6 to 7 feet, including a band of slate about 6 inches thick near the middle of the seam.

The developments are conducted on the double and single entry systems. Entry pillars are from 25 to 30 feet. Rooms 60 feet from center to center and driven 29 feet wide. Drainage is good except on the main entry. The roof is slate and very good. Ventilation is produced by a temporary furnace which gives fairly good results. All mechanical appliances in use are temporary. Preparations are being made to construct a new and up-to-date tippie. One inspection was made of this mine during the year and one certificate issued to the company.

JAMES KAY, Supt.

JOHN EASTHAM, Mine Boss.

PINE GROVE COAL CO.

No. 143. *Pine Grove Mine*.—This is a drift mine located on the Cabin Creek branch of the C. & O. Railway, two miles from Coalburg. The Peerless seam of coal is mined, which, at this point, measures from 32 to 36 inches. The developments are conducted on the double and single entry systems. Ventilation is natural and the results far from satisfactory. Drainage is fair. The roof is slate and very good. The mine is fairly timbered. It is operated upon a cheap scale and all the mechanical appliances are temporary. Two inspections were made of this mine during the year and two certificates issued to the company.

JOHN PEACOCK, Supt.

JOHN PEACOCK, Mine Boss.

ROBINSON COAL CO.

No. 144. *Robinson Mine*.—This mine is located at Coalburg on the C. & O. Railway. It is a drift opening into the Cedar Grove seam, and at this place measures from 32 to 36 inches in thickness. Developments are on the double entry system. The mine is ventilated by a temporary furnace which was not giving very satisfactory results. This is due to the bad condition of the mine doors and stoppings. The mine is properly timbered and has an excellent slate roof. Drainage is fair. The oil used in the mine for illuminating purposes is legal test and up to the standard. About fifteen inches of the floor is taken up to make sufficient height for the mules. The product of this mine is handled over the tippie used by the Robinson Mine No. 5. Two inspections were made of this mine during the year and two certificates issued to the company.

A. M. WOOLDRIDGE, Supt.

JAMES MURRAY, Mine Boss.

No. 145. *Robinson Mine No. 5*.—This is a drift mine located at Coalburg on the C. & O. R. R., 17 miles from Charleston. The coal mined is known as the Coalburg seam which measures from 5 1-2 to 6 feet in thickness at this point, including a band of bone or nigger-head coal about 8 inches thick near the top of the seam. Developments are on the double entry system. The ventilation is produced by a furnace which gives very satisfactory results. The roof is slate and is fairly good. Drainage is fair. Mine doors and stoppings are in good repair. The mine is properly timbered and cross-cuts are regularly driven. Oil used in the mine is legal test and comes up to the standard. Stretchers are kept on hand as required by law. The company has made great improvements inside of the mine during the year. A new furnace was constructed and the main haulways relaid with steel rails. Two inspections were made of this mine and two certificates issued to the company.

A. M. WOOLDRIDGE, Supt.

JAMES MURRAY, Mine Boss.

EAST BANK C. & C. CO.

No. 146. *East Bank Mine*.—This is a drift mine located at East Bank on the line of the C. & O. Railway. The Cedar Grove seam is mined, which measures from 32 to 36 inches in thickness. Developments are on the double entry system. This mine is ventilated by a 10-foot fan which does not give satisfactory results. There was practically no air in circulation, a condition due to the fact that the main airway is obstructed by heavy falls of slate. Drainage is fair. The roof slate is very good. Mine doors and stoppings are in fair condition only. The second opening was impassable, being obstructed by water and falls of slate. About fifteen inches of the floor are taken up to give sufficient height for the mules. Oil used in the mine is legal test and up to the standard. The mine is fairly well timbered, but owing to bad management in the development of this mine years ago, the present operators will have a great deal of trouble and expense in getting the mine in proper working conditions. Two inspections were made of this mine during the year and two certificates issued to the company.

P. L. BRANNON, Supt.

P. L. BRANNON, Mine Boss.

BELMONT COAL CO.

No. 147. *Belmont Mine*.—This is a drift mine located at Crown Hill, on the line of the C. & O. Railway. The Coalburg seam is operated, and at this place varies in thickness from 4 1-2 to 5 feet. Developments are on the double entry system. Ventilation is produced by a seven foot exhaust fan which gives sufficient air when properly distributed, but the cross-cuts are driven irregularly and in many of the rooms the distance allowed by law is exceeded. Mine doors and stoppings are neglected. The mine is fairly well timbered. Drainage is fair. The haulways are in good condition. Oil used in the mines for illuminating purposes is legal test. The second opening comes up to the requirements. Stretchers are kept on hand as required by law. All mechanical appliances in use outside the mine are in fairly good condition. Two inspections were made of this mine during the year and two certificates issued to the company.

T. E. EMBLETON, Supt.

A. KIRBY, Mine Boss.

No. 148. *Klondike Mine*.—This mine is located at Crown Hill, on the line of the C. & O. Railway. It is a drift opening into the Lewiston seam, which at this place varies in thickness from 3 1-2 to 4 1-2 feet. The workings of the mine are carried on on the double entry system. Ventilation is produced by a fan which gives very satisfactory results. The roof is slate and in some sections is bad, but the miners are well supplied with timber and the mine is well timbered. Mine doors and stoppings are in fair condition. Drainage is fair. Cross-cuts are regularly driven and the second opening comes up to the standard. Stretchers are kept on hand as required by law. All mechanical appliances in use are substantial and in good repair. This mine is operated in connection with the Belmont mine, the product of the two mines being handled over the same tippie. Two inspections were made of this mine during the year and two certificates issued to the company.

T. E. EMBLETON, Supt.

G. H. HUDNELL, Mine Boss.

EQUITABLE COAL CO.

No. 149. *Coalburg Mine*.—This is a drift mine located at Crown Hill, on the line of the C. & O. Railway. The Coalburg seam is operated, and at this place measures from 4 1-2 to 5 feet in thickness. The workings of this mine are on the double entry system. The roof is slate and fairly good throughout. The mine is ventilated by natural means and the results are very unsatisfactory, as there is practically no air in circulation in any part of the mine. The cross-cuts, or break-throughs, are not regularly driven. Mine doors and stoppings are neglected. This mine makes very little water. Drainage is fair. The Superintendent's attention was called to the deficiency in ventilation and he gave assurance that a fan or furnace would be installed at once. This mine is operated in connection with the Kanawha mine, the product of the two mines being handled over one tipple.

Two inspections were made of this mine during the year and two certificates issued to the company.

M. E. SCHAFFER, Supt.

HARRY SCOTT, Mine Boss.

No. 150. *Kanawha Mine*.—This is a drift mine located at Crown Hill, on the line of the C. & O. Railway, 22 miles east of Charleston. The coal mined is known as the Kanawha seam, which varies in thickness from 3 1-2 to 4 feet. Developments are on the double entry system, and ventilation is produced by an 18-foot fan which gives satisfactory results. The roof is slate and very good. They shoot from 8 to 12 inches of slate down to give sufficient height for the mules. Cross-cuts are regularly driven. Mine doors and stoppings are in fair condition, and the mine is fairly well timbered. The mine is practically dry. In some sections of the mine the haulways are obstructed with slate. A great many improvements have been made in this mine during the year. The fan was removed in the mine to a point near the working places, and a very complete electric plant installed. The main haulways have been re-laid with steel rails. Oil used in the mine is legal test and up to the standard. Stretchers are kept on hand at the mine as required by law. Mine rules are posted. All mechanical appliances are substantial. Two inspections were made of this mine during the year and two certificates issued to the company.

M. E. SCHAFFER, Supt.

HARRY SCOTT, Mine Boss.

PAWNEE COAL CO.

No. 151. *Lewiston (Black Cat) Mine*.—This is a drift mine located 1-2 mile west of Crown Hill, on the C. & O. Railway. The Lewiston seam is operated at this point, which varies in thickness from 3 1-2 to 4 feet. Developments are on the double entry system. The roof is slate and very good. Ventilation is produced by a fan which does not give satisfactory results, which is due to the airways being practically closed up by heavy falls of slate. Mine doors and stoppings are in bad condition. The mine is not properly timbered, and the drainage is bad. The second opening does not come up to the requirements. A letter was addressed to the above Company calling its attention to the defective conditions existing in the mine, and asked that they be remedied. Two inspections were made of this mine during the year and two certificates issued to the company.

A. L. CHAMBERS, Supt.

DAN HUDNALL, Mine Boss.

No. 152. *Coalburg (Black Cat) Mine*.—This mine is located 1-2 mile west of Crown Hill on the C. & O. Railway. It is a drift opening into the Coalburg seam, which at this point measures 6 feet in thickness, including two bands of slate averaging 6 inches in thickness. The roof is slate and in most places is bad. The developments are on the double and single entry systems. The mine is ventilated by means of a fan with poor results, as the inlet air course is practically filled with slate, which prevents the air from circulating through the mine. Drainage and roads are in bad condition, and the mine is not properly timbered owing to the bad management of the former operators of this mine. The present operators will have a great deal of trouble and expense in getting the mine in proper working condition. A letter was addressed to the company asking that it attend to the defective condition of this mine. Two inspections were made of the mine during the year and two certificates issued the company.

A. L. CHAMBERS, Supt.

DAN HUDNALL, Mine Boss.

SCRANTON SPLINT COAL CO.

No. 153. *Scranton Mine*.—This mine is located on Paint Creek on the K. & P. R. R., 3 miles from Pratt. It is a drift opening into the Coalburg seam, which, at this point, measures from 5 to 6 feet in thickness, including a band of slate varying in thickness from 4 to 8 inches. The developments are on the double entry system. Entry pillars are from 30 to 40 feet. Rooms 50 feet from center to center and driven 30 feet wide. The roof in this mine is composed of top coal and it makes an excellent roof. The haulways are in good condition, as they are kept clean from loose coal and have sufficient room for passing the cars. Cross-cuts are regularly driven, and mine doors and stoppings are in first class condition. The mine is ventilated by a 16-foot fan which gives good ventilation throughout. All stoppings on the main entries are built of stone, and the leakage is not nearly so great as when wooden brattices are used. The mine is properly timbered. Drainage, good. Oil used in the mine is legal test. Stretchers are kept on hand as required by law. All mechanical appliances in use are substantial and in good repair. This company takes pride in complying with the State mining laws. Two inspections were made of this mine during the year and two certificates issued to the company.

W. W. MUCKLOW, Supt.

T. M. BURKE, Mine Boss.

PAINT CREEK COAL CO.

No. 154. *Paint Creek Mine*.—This is a drift mine located on Paint Creek on the K. & P. R. R., 3 miles from Pratt. The Coalburg seam is operated, and at this point measures 7 feet in thickness, including a band of bone, or "nigger head," about three inches thick. The developments are on the double entry system. Entry pillars from 30 to 40 feet, and rooms 50 feet from center to center and driven 30 feet wide. Ventilation is produced by a ten foot fan which supplies sufficient air and it is properly distributed throughout the mine. The roof is sand-stone and very good. Mine is properly timbered in all sections. Mine doors and stoppings are in good repair. Drainage fair. Oil used in the mine for illuminating purposes is legal test and up to the standard. Stretchers are kept on hand as re-

quired by law. All mechanical appliances are substantial and in good repair. Two inspections were made of this mine during the year and two certificates issued to the company.

W. W. MUCKLOW, Supt.

J. R. MUCKLOW, Mine Boss.

STANDARD SPLINT & GAS COAL CO.

No. 155. *Standard Mine.*—This is a drift mine located on Paint Creek on the K. & P. R. R. The seam operated is the Coalburg, and at this point it varies in thickness from 6 1-2 to 7 feet. The workings of the mine are on the double entry system. Roof is sand-stone and very good. Drainage is good. Ventilation is natural, and at present is fairly good. The second opening comes up to the requirements. Cross-cuts are regularly driven. There are four separate openings reached by a tram road sixteen hundred feet long. This is a new mine opened only recently. All mechanical appliances in use are new and substantial.

J. A. STRAUGHAN, Supt. and Mine Boss.

GROSE COLLIERY CO.

No. 156. *Grose Mine.*—The above company is breaking ground preparatory to developing a coal mine. The opening is being made on the east side of Paint Creek about 9 miles from Pratt, on the line of the K. & P. R. R. The coal is the No. 2 Gas and is about four feet thick.

IMPERIAL COLLIERY CO.

No. 157. *Imperial Mine.*—This mine is a drift mine located on Paint Creek on the K. & P. R. R., 14 miles from Pratt. The Eagle No. 5 seam is operated, which measures 5 feet in thickness including a band of slate from 4 to 7 inches thick. Developments are on the double entry system. Roof is slate and good, except some sections where the draw slate is 12 inches thick and must either be carefully posted or taken down. The mine is properly timbered. Mine doors and stoppings are in good repair. Drainage is fair. Ventilation is produced by a 7-foot fan which furnishes sufficient air throughout the mine. The Aultman conveyors are used at this mine, operated by electric power supplied by a plant installed near the tippie. Oil used in the mine is legal test and up to the standard. This is a new opening and all mechanical appliances are new and substantial. One inspection was made during the year and no certificates issued.

LEE LONG, Supt.

LEE JENKINS, Mine Boss.

GREENBRIER COAL CO.

No. 158. *Eagle Mine No. 1.*—This mine is located on Paint Creek on the K. & P. R. R., 12 miles from Pratt. It is a drift opening into the No. 1 Gas seam, which measures 4 feet in thickness. The mine has a slate roof, which is fairly good at all points, except from 6 to 8 inches of draw slate which has to be taken down in some sections. The developments are on the double entry system. Drainage is fair. Ventilation is natural and fairly good. The mine is properly timbered. Oil used in the mine is legal test and up to the standard. This mine has been opened only recently. Four openings have been made and improvements of a substantial nature are in progress. One inspection was made of this mine during the year and no certificate issued.

J. J. DUFFEY, Supt.

W. H. VAUGHAN, Mine Boss.

No. 159. *Eagle (No. 2) Gas Mine*.—This is a drift mine located on Paint Creek on the K. & P. R. R., 12 miles from Pratt. The No. 2 Gas seam is operated, and at this point measures 5 feet in thickness. Developments are on the double entry system. Ventilation is produced by natural causes, which gives sufficient air for the number of men employed in the mine. Drainage is fairly good. The roof is sand-stone and very good. The mine is properly timbered. Oil used for illuminating purposes in the mine is up to the standard. The second opening comes up to the requirements. This mine has been only recently opened and as yet the developments are small. The product of the two mines, Eagle No. 1 and Eagle No. 2, are handled over the same tippie. One inspection was made of this mine during the year and no certificate issued.

J. J. DUFFEY, Supt.

W. H. VAUGHAN, Mine Boss.

CHESAPEAKE MINING CO.

No. 160. *Chesapeake Mine*.—This is a drift mine located near Handley, on the line of the C. & O. R. R. The coal mined is known as the Kanawha seam, which varies in thickness from 4 to 5 feet, including a band of rock about 6 inches thick. The developments are on the double entry system. There are five distinct openings, all of which are connected and ventilated by a 10-foot fan which furnishes 30,000 cubic feet of air per minute, which is sufficient when properly distributed throughout the mine. Cross-cuts, or break-throughs are not kept up as required, and the mine doors and stoppings are in bad repair. The roof is sand-stone and slate, and in some sections it is good and in others bad. The mine is properly timbered. Drainage, fair. In some sections of the mine the sides of the haulways are obstructed by loose slate. This is due to the bad roof, which is constantly falling along some of the headings. The oil used in the mine for illuminating purposes is up to the standard. The second opening comes up to the requirements. All mechanical appliances in use outside the mine are substantial and in good repair. Two inspections were made of this mine during the year and two certificates issued.

J. B. LEWIS, Supt.

ALEX. THOMPSON, Mine Boss.

MONTGOMERY COAL CO.

No. 161. *Kanawha Mine*.—This is a drift mine located one mile east of Handley on the line of the C. & O. R. R. The coal mined is known as the Kanawha seam, which varies in thickness from 3 1-2 to 5 feet, with some impurities. The developments are on the double and single entry systems. Ventilation is produced by natural means, which were found to be insufficient for the number of men employed. Cross-cuts are regularly driven. Mine doors and stoppings are in fair condition. The mine is properly timbered. Drainage is fair. The roof is principally sand-stone and very good. The haulways are free from side obstructions. The second opening comes up to the requirements. Oil used in the mine is legal test and up to the standard. All mechanical appliances in use are in good repair.

A letter was addressed to the Superintendent calling his attention to the deficiency in the ventilation.

S. H. MONTGOMERY, Supt.

S. P. JOHNSON, Mine Boss.

KANAWHA & COAL RIVER COAL CO.

No. 162. *Black Band Mine No. 1.*—This is a drift mine located on Davis Creek on the Kanawha & Coal River Railroad, 12 miles from Spring Hill. The coal mined is known as the Black Band seam, which varies in thickness from 28 to 40 inches. The developments are on the double entry system. Entry pillars are 25 to 30 feet, and rooms turned 75 feet from center to center and are driven from 40 to 50 feet wide. The roof is sandstone and good at all points. The ventilation is produced by an 8-foot fan, which furnishes 23,000 cubic feet of air per minute, which is properly distributed throughout the mine. Drainage is fair. The mine is properly timbered, and cross-cuts are regularly driven. Mine doors and stoppings are in good repair. The second opening comes up to the requirements. Oil used is legal test, and stretchers are kept on hand as required by law. All mechanical appliances in use are substantial. Two inspections were made of this mine during the year and two certificates issued to the company.

ARTHUR MITCHELL, Supt.

CHARLES SNODGRASS, Mine Boss.

No. 163. *Black Band Mine No. 3.*—This is a drift mine located on Davis Creek on the Kanawha & Coal River Railroad, 10 miles from Spring Hill. The coal mined is known as the Black Band seam, and varies in thickness from 28 to 40 inches. Developments are on the double and single entry systems. Ventilation is produced by a temporary furnace, which gives sufficient air for the number of men employed in the mine. This mine is properly timbered, and cross-cuts are regularly driven. Roadways and drainage are in bad condition. The mechanical appliances in use are only temporary. Two inspections were made of this mine during the year and two certificates issued to the company.

ARTHUR MITCHELL, Supt.

A. B. MOONEY, Mine Boss.

No. 164. *Carkins Mine.*—This is a drift mine located two miles west of Marmet, on the line of the C. & O. Railway. The Peerless seam is operated, and at this point varies in thickness from 27 to 32 inches. The workings of this mine are conducted on the double entry system. Entry pillars are 45 feet. Rooms turned 45 feet from center to center and driven 28 to 30 feet wide. Ventilation is produced by a 10-foot fan which furnishes 20,000 cubic feet of air which is properly distributed throughout the mine. The roof is slate and good, except from 4 to 8 inches of clean slate, which has to be taken down. Drainage is fairly good except at local points. Cross-cuts are regularly driven. Mine doors and stoppings are in good repair. The oil used in the mine is legal test, and stretchers are kept on hand at the mine as required by law. The second opening comes up to the requirements. All mechanical appliances are substantial and in good repair. Two inspections were made of this mine during the year and two certificates issued to the company.

ARTHUR MITCHELL, Supt.

DAVID MITCHELL, Mine Boss.

No. 165. *Kanawha Fork Mine.*—This is a drift mine located on Davis Creek, 9 miles from Spring Hill. The coal at this point varies in thickness from 30 to 44 inches. Developments are on the double entry system. Ventilation is produced by a temporary furnace, which gave fair results when the mine was last inspected. The drainage is fair. The roof is

principally sand-stone, except some sections where the draw slate is from 6 to 10 inches in thickness and has to be taken down. This is a new opening and the developments are small. All mechanical appliances in use are temporary. One inspection was made of this mine during the year and no certificate issued.

ARTHUR MITCHELL, Supt.

C. A. PARCELL, Mine Boss.

WEST VIRGINIA PEERLESS COAL CO.

No. 166. *Peerless Mine*.—This is a drift mine located on the Winifrede railroad, 1-2 mile from Winifrede Junction. The Peerless seam is operated, and at this point measures 28 inches in thickness. The developments are on the double entry system. Pillars are from 20 to 30 feet. Rooms are driven 60 feet from center to center and 30 feet wide. The mine has an excellent slate roof and is properly timbered. The drainage is fair. Ventilation is produced by a small furnace, which gives sufficient air for the number of men employed in the mine. This is a small mine and is operated on a cheap scale. All mechanical appliances in use are only temporary. One inspection was made of the mine during the year and one certificate issued.

GEORGE HENDERSON, Supt.

JAMES CLARK, Mine Boss.

MASON COUNTY.

HOPE SALT & COAL CO.

No. 167. *Hope Mine*.—This is a drift mine located at Mason on the line of the B. & O. R. R. The Pittsburg seam of coal is mined, which varies in thickness from 4 to 5 feet. The workings of this mine are conducted on the double entry system. Ventilation is produced by means of a furnace which does not give sufficient air to comply with the requirements. Owing to the large developments the furnace is inadequate. The roof is slate, and in some sections is bad, but the miners are well supplied with timber and the mine is fairly well timbered. This mine generates a large quantity of water. Drainage is fair. A pump is used in the mine, which is driven by gasoline with very good results. Cross-cuts are regularly driven and mine doors and stoppings are kept in fairly good repair. All mechanical appliances in use at this mine are in good repair. The product of this mine is consumed by the above named company in the manufacture of salt.

Two inspections of this mine were made during the year and two certificates issued to the company.

D. C. DAVIS, Supt.

HARRY H. WILLIAMS, Mine Boss.

MASON CITY MINING CO.

No. 168. *McDaniel Mine*.—This is a drift mine located one mile below Hartford on the line of the B. & O. R. R. The coal mined is known as the Pittsburg seam, which measures from 4 1-2 to 5 feet in thickness. Developments are made on the double entry system. Ventilation is produced by a small fan which gives fairly good results. The roof is slate and is very good. Cross-cuts are regularly driven. Mine doors and stoppings are in good repair. Drainage is good with the exception of some of the advanced workings. The second opening comes up to the requirements. Oil used in the mine is legal test and is up to the standard. All

mechanical appliances in use are in good repair. Two inspections were made of this mine during the year and two certificates issued to the company.

G. H. GRESS, Supt.

W. L. HARRIS, Mine Boss.

LIVERPOOL SALT & COAL CO.

No. 169. *Jackson Furnace Mine.*—This is a drift mine located at Hartford on the line of the Baltimore & Ohio R. R. The coal mined is known as the Pittsburg seam, which measures from 4 1-2 to 5 feet in thickness. Developments are on the double entry system. Ventilation produced in this mine is by a 10-foot fan which furnishes 15,000 cubic feet of air per minute and this is properly distributed throughout the mine. This mine has an excellent slate roof. Mine doors and stoppings are in good repair and the mine is well timbered. Drainage is good. Cross-cuts are regularly driven and the haulways are kept in good condition. Oil used in this mine is legal test and up to the standard. The product of this mine is consumed by the manufacture of salt and by the local trade. All mechanical appliances in use are in good repair. Two inspections were made of this mine during the year and two certificates issued to the company.

E. A. SMITH, Supt.

SAM EDWARDS, Mine Boss.

HARTFORD CITY SALT CO.

No. 170. *Hartford Mine.*—This is a slope mine located at Hartford on the line of the B. & O. R. R. The coal mined is known as the Pittsburg seam, and measures at this point from 4 1-2 to 5 feet in thickness. Developments are on the double entry system. The roof is principally sandstone and very good. Ventilation is produced by a 10-foot fan, which gives sufficient air, and it is properly distributed throughout the mine. Cross-cuts are regularly driven, and mine doors and stoppings are in good repair. The mine is properly timbered. Drainage is good. The second opening comes up to the requirements. Oil used in this mine is legal test and is up to the standard. All mechanical appliances in use are in good condition. The product of this mine is consumed in the manufacture of salt and by local trade. Two inspections were made of this mine during the year and two certificates issued to the company.

D. E. NEWTON, Supt.

RICHARD JENKINS, Mine Boss.

CONSUMERS COAL & MINING CO.

No. 171. *New Castle Mine.*—This is a drift mine located one mile below Clifton on the line of the B. & O. R. R. The Pittsburg seam of coal is mined, which varies in thickness from 3 1-2 to 4 1-2 feet, and developments are made on the double entry system. Ventilation is produced by a small furnace which is inadequate for this mine, as there was practically no air in circulation in any part of the mine. A new opening was being made and it is the intention of the management to install a fan or construct a larger furnace. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. The roof is principally slate and in some sections is very bad and to some extent very dangerous. The miners are well supplied with timber and the mine is properly timbered. Wherever there is loose slate on the entries it is taken down, and if timbers are needed they set them. The danger of falling roof is well looked

after. In some sections the drainage is bad. The oil used is up to the standard.

Two inspections were made of the mine during the year and two certificates issued to the company.

H. E. SPILMAN, Supt.

JAMES SMITH, Mine Boss.

No. 172. *Camden Mine*.—This is a drift mine located at Spilman on the line of the B. & O. R. R. The Pittsburg seam of coal is mined, which measures from 3 1-2 to 4 feet in thickness and is developed on the double entry system. The ventilation is produced by a temporary furnace, which gives sufficient air for the number of men employed in the mine. Drainage is fair, and the mine doors and stoppings are in good repair. The roof is slate and exceptionally good. Oil used in this mine for illuminating purposes is legal test and up to the standard. The mine is properly timbered and the haulways kept in good condition. All mechanical appliances in use are in good repair. The product of this mine is consumed by the Camden Clay Company in the manufacture of brick and by the local trade. Two inspections were made of the mine during the year and two certificates issued to the company.

H. E. SPILMAN, Supt.

HARRY HART, Mine Boss.

KLONDIKE COAL CO.

No. 173. *Klondike Mine*.—This mine is located 1 1-4 miles below Hartford on the line of the B. & O. R. R. It is a drift opening into the Pittsburg seam, which measures from 4 1-2 to 5 feet. The workings of this mine are conducted on the double entry system. The mine had an excellent slate roof, and entry pillars are from 20 to 30 feet. Rooms are turned 45 feet from center to center and driven 28 feet wide. The drainage is good and cross-cuts are regularly driven. Mine doors and stoppings are in good repair. The ventilation is produced by a furnace which gives very good results. The second opening comes up to the requirements and oil used is legal test and up to the standard. All mechanical appliances in use are in good condition. Two inspections were made of the mine during the year and two certificates issued to the company.

DANIEL BEIBEE, Supt.

ADAM YOUNG, Mine Boss.

BEECH GROVE COAL CO.

No. 174. *Beech Grove Mine*.—This is a drift mine located at Mason City on the line of the B. & O. R. R. The Pittsburg seam of coal is mined, and at this point it measures from 3 1-2 to 4 feet in thickness. The workings of the mine are conducted on the double entry system, and the roof is of sand-stone and slate and generally very good. Ventilation is produced by means of the exhaust steam from an underground pump, which gives only fair results. Cross-cuts are regularly driven and the mine doors and stoppings are in good repair. The haulways are in good condition, and drainage is fair. The second opening of this mine does not come up to the requirements of law. The oil used for illuminating purposes is legal test and up to the standard. All mechanical appliances in use outside the mine are in good repair. Two inspections were made of the mine during the year and two certificates issued to the company.

JOSEPH ICENHOWER, Supt.

JOHN HARRISON, Mine Boss.

THOMAS D. HARRIS COAL CO.

No. 175. *Black Diamond Mine*.—This is a drift mine located at Hartford on the line of the B. & O. R. R. The Pittsburg seam of coal is mined, and at this point it measures from 4 1-2 to 5 feet in thickness. Developments are conducted on the double and single entry systems, and ventilation is by natural causes which give only fair results. The roof is slate and fairly good. Cross-cuts are regularly driven, and mine doors and stoppings are in good repair. The drainage is only fair. A new opening has been recently made and a new furnace will be constructed in the near future at this opening. The capacity of this mine is small and the mechanical appliances are only temporary. One inspection was made during the year of this mine and one certificate issued to the company. THOS. D. HARRIS, Supt. RICHARD D. TURNBULL, Mine Boss.

PUTNAM COUNTY.

PLYMOUTH COAL & MINING CO.

No. 176. *Plymouth Mine*.—This is a drift mine located at Plymouth on the line of the K. & M. Railway. The Pittsburg seam is operated at this point, and measures from 5 to 6 1-2 feet in thickness. The roof is principally slate, and of a very uncertain and dangerous nature, which has to be carefully timbered to insure safety. The developments are on the double entry system, and entry pillars are 20 to 30 feet. Rooms are turned 50 feet from center to center and driven 30 feet wide. Drainage is fairly good. The ventilation is produced by a 12-foot fan, which gives fair results. This seam is very much disturbed by clay veins throughout the mine, and this causes the cross-cuts to be very irregular. The mine doors and stoppings are in fairly good repair, and haulways in good condition. Oil used in this mine is legal test and up to the standard. The second opening is up to the requirements of law. Stretchers are kept on hand. All mechanical appliances are substantial and in good repair.

Two inspections were made of this mine during the year and two certificates issued to the company.

W. C. MITCHELL, Supt.

JOSEPH VIRGIN, Mine Boss.

No. 177. *Manilla Mine*.—This is a drift mine located at Plymouth on the Fork of Poca. The Pittsburg seam is operated at this point, which measures from 5 to 6 feet in thickness. Developments are conducted on the double entry system. The roof is slate, and in some sections it is bad and has to be timbered carefully. Entry pillars are from 20 to 30 feet, and the rooms are turned 50 feet from center to center and driven 30 feet wide. The ventilation is produced by means of a fire basket and stack, which is giving sufficient air for the number of men employed in the mine. Should a greater number be employed the present system of ventilation would be inadequate. The miners are well supplied with timber and the mine is fairly well timbered. This seam is very much disturbed by clay veins, and this causes the cross-cuts to be irregular throughout the mine. The drainage is only fair, and mine doors and stoppings are in fairly good repair. This mine is operated in connection

with the Plymouth mine, and the product of the two mines is handled over the same tippie. During the year two inspections were made of this mine and two certificates issued to the company.

W. C. MITCHELL, Supt.

JOSEPH VIRGIN, Mine Boss.

OTTO-MARMET COAL MINING CO.

No. 178. *Florence Mine*.—This was a drift mine located three miles east of Raymond City, on a short line railroad. The mine was worked out and abandoned during the year. One inspection was made during the year and no certificate issued.

EDWARD SCHONEBAUM, Supt.

E. HEMMINGS, Mine Boss.

No. 179. *Pocatalico Mine*.—This is a drift mine located three miles east of Raymond City on a Short Line Railroad. The Pittsburg seam is operated, and at this point varies in thickness from 5 to 6 1-2 feet. The workings of this mine are conducted on the double entry system. The roof is principally slate of a dangerous nature, and has to be carefully watched and properly timbered. Entry pillars are 23 feet, and the rooms are turned 45 feet from center to center and driven 30 feet wide. The ventilation of this mine is produced by a furnace which gives very poor results. Owing to the very large developments of the mine the furnace is inadequate. This seam is very much disturbed by clay veins, and this causes the cross-cuts to be irregular throughout the mine. Drainage is fair, and the mine doors are in fairly good repair. The stoppings are principally built with slate and left in a very open condition, which permits a leakage of the air currents. This mine is properly timbered and the haulways are in fairly good condition. The second opening comes up to the requirements, and the oil used is of legal test. Stretchers are kept on hand at the mine as required by law. Two inspections were made of this mine during the year and two certificates issued to the company.

EDWARD SCHONEBAUM, Supt.

DAVID SANTROCK, Mine Boss.

No. 180. *Big Otto Mine*.—This is a drift mine located on Harmon's Creek, 5 miles east of Raymond City. The Pittsburg seam is operated, and at this point varies in thickness from 5 to 6 feet. The workings of this mine is conducted on the double entry system. The roof is slate and fairly good, except in some sections where the draw slate is from 6 to 10 inches in thickness and has to be taken down. Entry pillars are from 30 to 40 feet, and rooms are turned 50 feet from center to center and driven 30 feet wide. Ventilation is produced by a temporary furnace which gives sufficient air for the number of men employed in the mine. A new fan is on the ground and will be installed in the near future. Mine doors and stoppings are in good repair. The drainage is not very good as no regular system has yet been adopted. This seam is very much disturbed by clay veins throughout the mine, and this causes the cross-cuts to be irregular. The mine doors are in good repair and the mine is properly timbered. The main openings to this mine are reached by a tunnel through the mountains, a distance of 2 1-4 miles. This haulway has recently been relaid with 35 pound steel rails, and three 12 ton electric motors will be used in hauling the product of this mine through the tunnel to the tippie. This company has recently installed a large power plant, having two Cor-

liss engines of 235 horse power each. Two generators of 250 K. W. and three steam boilers of 170 horse power each. All mechanical appliances are new and substantial. One inspection was made during the year of this mine but no certificate issued.

EDWARD SCHONEBAUM, Supt.

ANDREW UTT, Mine Boss.

BLACK BETSEY COAL MINING CO.

No. 181. *Black Betsey Mine*.—This mine is located at Black Betsey, two miles below Raymond City on the line of the K. & M. R. R. It is a drift opening, and the coal mined is known as the Pittsburg seam which, at this point, varies in thickness from 5 to 6 feet. Developments are conducted on the double entry system. The roof is principally slate, which has to be carefully watched and timbered. Entry pillars are 20 to 30 feet. Rooms are turned 45 feet from center to center and driven 30 feet wide. This mine generates very little water. Drainage is good. Ventilation is produced by a furnace which furnishes 13,000 cubic feet of air per minute, which is sufficient and is properly distributed throughout the mine. This seam is badly disturbed by clay veins, which cause the cross-cuts or break-throughs to be very irregular throughout the mine. The second opening comes up to the requirements. Oil used in the mine is legal test. An electric plant has been installed recently. All mechanical appliances are new and substantial. Two inspections were made of this mine during the year and two certificates issued to the company.

F. L. TRYEE, Supt.

J. W. HARGRAVES, Mine Boss.

THE THOMAS COAL MINING CO.

No. 182. *Oak Forest Mine*.—This is a slope mine located at Oak Forest, three miles below Winfield. The Pittsburg seam is operated, which varies at this point, from 34 to 40 inches in thickness, including a band of slate about 2 inches in thickness. The mine is developed on the double entry system. The roof is slate and very good. Entry pillars are 30 to 40 feet. Rooms are turned 42 feet from center to center and driven 24 feet wide. The roof is slate and very good. Drainage is fair. The ventilation is produced by a seven foot fan which furnishes sufficient air, and this is well distributed throughout the mine. Mine doors and stoppings are in good repair. Cross-cuts are regularly driven and mine is properly timbered. The second opening does not come up to the requirements. Oil used in the mine is legal test. This mine is operated on a cheap scale, and the mechanical appliances are mostly temporary. Two inspections were made of the mine during the year and two certificates issued.

D. L. THOMAS, Supt.

M. F. McLAUGHLIN, Mine Boss.

LINCOLN COUNTY.

ROCHESTER COAL CO.

No. 183. This mine is located at Hadley, on the Guyan River, 23 miles from Barboursville. It is a drift opening and is developed on the double entry system. The roof is sand-stone and is very good. Entry pillars are from 20 to 30 feet, and the rooms are turned 60 feet from center to center and driven 30 feet wide. The coal at this point varies in thickness from 6 to 7 feet, including two bands of slate, one of which is about 17 inches

thick and the other three inches, making a total of 20 inches of slate in the seam. The ventilation is produced by a furnace which gives sufficient air for the number of men employed in the mine. Cross-cuts are regularly driven, and mine doors and stoppings are in good repair. The second opening comes up to the requirements, and the oil used in the mine is legal test. The drainage is fair. All mechanical appliances in use are in good repair. Two inspections of this mine were made during the year and two certificates issued to the company.

A. L. PUCKET, Supt.

A. F. HOLLINGSWORTH, Mine Boss.

LINCOLN COAL CO.

No. 184. *Lincoln Mine*.—This is a drift mine located at Hadley on the Guyan Valley Railroad, 23 miles from Barboursville. The coal at this point varies in thickness from 6 to 7 feet, including two bands of slate, one of which is 10 inches thick and the other 8 inches, making a total of 18 inches of slate in the seam. Developments are conducted on the double entry system. The roof is slate and very good. Entry pillars are 25 to 30 feet, and rooms are turned 50 feet from center to center and driven 28 feet wide. The ventilation is produced by a furnace and is altogether inadequate, owing to the excessive use of blasting powder. There are sixty miners employed in the mine, each of them using one-half keg of powder per day, as the entire output of the mine is blasted from the solid coal. Cross-cuts are regularly driven and the mine doors and stoppings are in good repair. The second opening comes up to the requirements, and haulways are in fair condition. The mine is properly timbered. The product is conveyed from the mine opening across Guyan river to the tippie on the north side. A 2 1-2 inch cable 600 feet long, and buckets with a capacity of 2 1-2 tons each, successfully operated by steam, being used for this purpose. All mechanical appliances are new and substantial. There were two inspections made of this mine during the year and two certificates issued to the company.

C. C. HADLEY, Supt.

JOSEPH PIRRUNG, Mine Boss.

FAYETTE COUNTY.

The twelve mines on the north bank of the Kanawha river in Fayette County are within the Third mining district, but for convenience these mines are inspected by the inspector of the Second district.

KANAWHA & HOCKING C. & C. CO.

No. 185. *K. & H. Mine No. 111*.—This mine is located on the Smithers Creek branch of the K. & M. R. R., 1 mile from Cannelton. This is a drift opening into the No. 2 Gas seam, and at this point it varies in thickness from 4 1-2 to 5 1-2 feet. The workings of this mine are conducted on the double entry system. Entry pillars are from 25 to 30 feet, and the rooms turned 70 feet from center to center and driven 30 feet wide. The roof is slate, and, as a general rule, is very good. The mine is properly timbered where necessary, and the haulways are kept in good repair with sufficient room for workmen to pass the cars. Ventilation is produced by a fan which gives sufficient air and it is properly distributed throughout the mine. Very little water is generated in this mine. The

drainage is fair, and mine doors and stoppings are in good repair. The second opening comes up to the requirements. Oil used in this mine is legal test and up to the standard. All mechanical appliances in use are substantial. Rules are posted at the mine, and stretchers are kept on hand as required by law. A rope-haulage plant has been installed during the year, there also being 50 coke ovens under course of construction at this mine. Two inspections were made of the mine during the year and two certificates issued to the company.

T. E. ROAN, Supt.

EDWARD LITTLEJOHN, Mine Boss.

No. 186. *K. & H. Mine No. 112.*—This is a drift mine located on Smithers Creek branch of the K. & M. R. R., 2 miles from Cannelton. The No. 2 Gas seam is operated, and at this point measures from 5 to 6 feet in thickness. Developments are conducted on the double entry system, and the roof is very good. Entry pillars are 35 feet, and the rooms are turned 65 feet from center to center and driven 30 feet wide. The mine is properly timbered, and drainage is fair. Cross-cuts are regularly driven. Mine doors and stoppings are in fairly good repair, and haulways are kept free from obstruction with ample room to pass the cars. Ventilation is produced by a 10-foot fan which gives very satisfactory results. The second opening comes up to the requirements. Oil used is legal test and up to the standard. Rules are posted at the mine and stretchers kept on hand as required by law. All mechanical appliances in use are in good repair. Aultman conveyors have been installed recently, dispensing with the incline. Two inspections were made of the mine during the year and two certificates issued to the company.

T. E. ROAN, Supt.

M. B. WELCH, Mine Boss.

No. 187. *K. & H. Mine No. 113.*—This mine is located at Longacre on the main line of the K. & M. R. R., 28 miles from Charleston. It is a drift mine and the coal mined is known as the No. 2 Gas seam, which at this point measures 4 1-2 feet in thickness, including a band of slate about 6 inches thick near the middle of the seam. The mine is developed on the double entry system, and has a fairly good slate roof. The drainage is good and mine doors and stoppings are in fairly good repair. The mine is well timbered. Haulways are in good condition. Ventilation is by natural causes and the results far from satisfactory, as there is practically no air in circulation in any part of the mine. The company is making preparations to install a fan at this mine in the near future. Special rules are posted and stretchers kept on hand at the mine as required by law. The second opening is up to the requirements. All mechanical appliances in use are in good repair. One inspection was made of the mine during the year and one certificate issued to the company.

T. E. ROAN, Supt.

S. H. HILLDITCH, Mine Boss.

No. 188. *K. & H. Mine No. 114.*—This is a drift mine located at Longacre on the main line of the K. & M. R. R., 28 miles from Charleston. The No. 2 Gas seam is operated, and at this point varies in thickness from 4 to 5 feet. The mine has an excellent slate roof, and developments are conducted on the double entry system. Entry pillars are from 30 to 40 feet and the rooms turned 50 feet from center to center and driven 30 feet wide. Very little water is generated in this mine and drainage is fair. The haul-

ways are kept clean from obstructions with sufficient room for the workmen to pass the cars. The mine is properly timbered where necessary. The cross-cuts, or break-throughs, are not kept up as required by law. Mine doors and stoppings are in very good repair. Ventilation is produced by a 7-foot fan which furnishes sufficient air but it is not properly distributed to the working places. The second opening comes up to the requirements. All mechanical appliances in use are in good repair. Special rules are posted and stretchers kept on hand as required by law. There are sixty-four additional coke ovens under course of construction at this place.

Two inspections were made of the mine during the year and two certificates issued to the company.

T. E. ROAN, Supt.

S. H. HILLDITCH, Mine Boss.

No. 189. *K. & H. Mine No. 115.*—This is a drift mine located at Harewood on the main line of the K. & M. R. R., 29 miles from Charleston. The coal mined is known as the No. 2 Gas seam, and at this point it varies in thickness from 5 to 6 feet. The developments are conducted on the double entry system. The roof is slate and very good. Entry pillars are 30 feet. Rooms are turned 60 feet from center to center and driven 30 feet wide. The mine doors and stoppings are in fairly good repair. Cross-cuts, or break-throughs, are not kept up as required by law. Drainage is fair. The mine is properly timbered. Ventilation is produced by a 7-foot fan which furnishes sufficient air but it is not properly distributed at the working places. Roadways are free from loose slate, and sufficient room along the haulways. All mechanical appliances used are satisfactory. Oil used in the mine is legal test and up to the standard. Rules are posted and stretchers kept on hand at the mine as required by law.

This company has under course of construction 86 additional coke ovens at this place. Two inspections were made of the mine during the year and two certificates were issued to the company.

T. E. ROAN, Supt.

ROBERT TAYLOR, Mine Boss.

No. 190. *K. & H. Mine No. 117.*—This is a drift mine located at Ferris on the main line of the K. & M. R. R., 36 miles from Charleston. The No. 2 Gas seam is operated, which, at this point, measures from 4 1-2 to 5 feet in thickness. The roof is slate and fairly good, except in some sections of the mine where the draw slate is from 3 to 14 inches thick, which has to be taken down or carefully timbered. Cross-cuts are regularly driven and mine doors and stoppings are in fairly good repair. Drainage is fair and ventilation is produced by a 7-foot fan which furnishes sufficient air, and it is properly distributed throughout the mine. All mechanical appliances used are satisfactory. Rules are posted and stretchers and blankets kept on hand as required by law. The second opening comes up to the requirements, and the oil used in the mine is legal test. During the year a fan and an electric plant were installed at this mine. Two inspections were made during the year of this mine and two certificates issued to the company.

T. E. ROAN, Supt.

EDWARD FLEEMAN, Mine Boss.

COLUMBUS IRON & STEEL CO.

No. 191. *Raven Mine.*—This is a drift mine located on Smithers Creek branch of the K. & M. R. R., 4 miles from Cannelton. The No. 2 Gas seam is operated and at this point measures in thickness from 4 1-2 to 5 1-2 feet, including in some sections of the mine a slate band about the middle of the seam, varying in thickness from 4 to 10 inches. The mine is developed on the double entry system. Pillars between entries are 50 to 60 feet; rooms turned 62 feet from center to center and driven 28 feet wide. The roof is principally slate and very good. Drainage is fair. Mine doors and stoppings are in fairly good repair, and cross-cuts are regularly driven. The mine is properly timbered and the second opening comes up to the requirements. Roadways are free from loose slate and there is sufficient room along the haulways. Ventilation is produced by a 10-foot fan which furnishes 30,000 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. Oil used in the mine is legal test and up to the standard. All mechanical appliances in use are in good repair. One hundred coke ovens and several new houses are being built at this plant. Two inspections were made of this mine during the year and two certificates issued to the company.

F. M. SHIPLEY, Supt.

W. A. OTEY, Mine Boss.

KANAWHA GAS COAL CO.

No. 192. *Kanawha Gas Mine.*—This mine is located at Smithers Creek on the main line of the K. & M. R. R., 27 miles from Charleston. It is a drift opening into the No. 2 Gas seam, which at this point measures from 5 to 6 feet in thickness. Developments are conducted on the double entry system, and the mine has a very good roof of slate. Entry pillars are from 40 to 50 feet; rooms turned 60 feet from center to center and driven 30 feet wide. Drainage is good. The second opening comes up to the requirements of law. Cross-cuts are regularly driven. Mine doors and stoppings are in fairly good repair, and roadways free from loose slate with sufficient room along the haulways. The mine is properly timbered, and ventilation is produced by a temporary furnace which gives very poor results, there being practically no air in circulation in any part of the mine. All mechanical appliances used on the outside of the mine are substantial. A letter was addressed to the company calling attention to the deficiency in ventilation, and a request made that a fan be installed at once. Two inspections were made of this mine during the year and two certificates issued to the company.

JOHN W. MOORE, Supt.

JOHN FILBIN, Mine Boss.

BOOMER COAL & COKE CO.

No. 193. *Boomer Mine No. 1.*—This is a drift mine located on Bowman's Creek Railway, a branch of the K. & M. R. R., 1-2 mile from Boomer. The No. 2 Gas coal is operated and at this point measures 5 feet in thickness. The mine is developed on the double entry system. The roof is slate and very good. Entry pillars 40 to 50 feet; rooms turned 75 feet from center to center and driven 35 feet wide. The mine is properly timbered throughout and no loose found on the haulways or headings and there is

sufficient room for the workmen to pass the cars. The second opening comes up to the requirements. Cross-cuts are regularly driven. Mine doors and stoppings are in good repair. Drainage is good. Ventilation is produced by a 10-foot fan, which furnishes 32,000 cubic feet of air per minute, which is sufficient and is properly distributed throughout the mine. All mechanical appliances in use are substantial. Oil used in the mine is legal test and up to the standard. Stretchers are kept at the mine as required by law. Two inspections were made of this mine during the year and two certificates issued.

WM. NICHOLSON, Supt.

M. H. BLYTH, Mine Boss.

No. 194. *Boomer Mine No. 2.*—This is a drift mine located on Bowman's Creek Railway, a branch of the K. & M. Railway, 2 miles from Boomer Station. The coal mined is known as the No. 1 Gas, or Eagle seam, and at this point it varies in thickness from 5 1-2 to 6 feet, including two bands of impurities, one being a rock 2 inches thick, and the other fire-clay 3 inches thick, both being near the middle of the seam. The workings of this mine are conducted on the double entry system, and it has a very good slate roof. Entry pillars are 40 to 50 feet; rooms turned 75 feet from center to center and driven 30 feet wide. The mine is properly timbered and drainage is fairly good. Mine doors and stoppings are in good repair. The second opening comes up to requirements. There is ample room on all haulways for workmen to pass cars. Ventilation is produced by a 10-foot fan which furnishes sufficient air throughout the mine. Cross-cuts are regularly driven, and the oil used for illuminating purposes is legal test and up to the standard. All mechanical appliances in use are in good repair. This company takes pride in keeping everything in good condition. Two inspections were made of this mine during the year and two certificates issued to the company.

WILLIAM NICHOLSON, Supt.

GEORGE HIGGINS, Mine Boss.

No. 195. *Boomer Mine No. 3.*—This is a drift mine located on Bowman's Creek Railway, a branch of the K. & M. R. R., 2 miles from Boomer Station. The coal mined is the No. 2 Gas seam which, at this point, measures in thickness from 5 1-2 to 6 1-2 feet. The roof is slate, and as general rule is good throughout the mine. Developments are conducted on the double entry system. Entry pillars are 40 feet; rooms turned 75 feet from center to center and driven 30 feet wide. The mine is properly timbered. Drainage, good. The second opening comes up to the requirements, and cross-cuts are regularly driven. Mine doors and stoppings are in fairly good condition. Ventilation is produced by a 8-foot fan which furnishes sufficient air and it is properly distributed throughout the mine. All mechanical appliances in use are substantial, and the oil used for illuminating purposes in the mine is up to the standard. Two inspections were made of the mine during the year and two certificates issued to the company.

WILLIAM NICHOLSON, Supt.

JOSEPH NUTTER, Mine Boss.

W. R. JOHNSON & CO.

No. 196. *Oakland Mine.*—This is a drift mine located at Smithers on the main line of the K. & M. R. R., 27 miles from Charleston. The coal

mined is known as the No. 2 Gas seam which, at this point, varies in thickness from 5 to 6 feet. The workings of this mine are conducted on the double entry system, and the mine has a very good slate roof throughout. Entry pillars are 40 feet; rooms turned 75 feet from center to center and driven 26 feet wide. The mine is properly timbered, but drainage is only fair. Cross-cuts are regularly driven, and mine doors and stoppings are in good repair. The haulways are kept free from side obstructions with ample room for the workmen to pass the cars. Ventilation is produced by a ten foot fan which furnishes 40,000 cubic feet of air per minute, and it is properly distributed throughout the mine. The second opening comes up to the requirements of the law. Oil used for illuminating purposes in the mine is up to the standard. All mechanical appliances in use are substantial. Two inspections were made of the mine during the year and two certificates issued to the company.

THOMAS BARTLAM, Supt.

BEN HILL, Mine Boss.

THIRD DISTRICT.

OFFICE OF THE THIRD DISTRICT MINE INSPECTOR.

MONTGOMERY, W. VA., June 30, 1903.

HON. JAMES W. PAUL,
Chief Mine Inspector,
Charleston, W. Va.

SIR:—

As required by section 3 of the mining law of this State I hereby submit to you my Sixth Annual Report as Mine Inspector in the Third District, for the year ending June 30th, 1903.

The Third Mining District comprises Fayette, Raleigh, Nicholas, Summers, Greenbrier, Monroe and Pocahontas counties. The mining, as yet, is confined to the following counties: Fayette, 113; Raleigh, 16; and Nicholas, 7 operations.

In the western end of Fayette county the celebrated Splint and Gas coals are produced, there being 13 splint and 39 gas coal mines in operation.

In the eastern end of Fayette county and in all the developments up to date in Raleigh county the world famed New River Smokeless Coal is the only coal mined. There are 84 mines in Fayette and 16 in Raleigh producing this desirable commodity.

In the near future there will be many more operations in the named counties producing this matchless article of commerce as new railroads are now being built in various directions and to where it is known that these valuable coal seams exist in such a form as to guarantee profitable employment to the workmen and satisfactory returns to the investors for numberless years.

During the earlier part of the past year, the business of this Third District, and especially so in the New River region, was of a very limited and uncertain nature. This was brought about by the officials of the United Mine Workers of America ordering all miners and mine workers to stop work on the 7th day of June, 1902. This order was for a short time very seriously observed and business of all descriptions almost brought to a standstill. The only thing done was the marching of idle men and in many instances women and children, white and colored, equipped with bands and banners, to some points to hear "Mother" Jones and other labor leaders speak. As a general rule these men were from other States and knew very little about West Virginia. They undertook to explain to the miners how unjustly they were being treated by the operators and how poorly they were being fed, clothed, housed, etc., in comparison with the conditions existing in other States. This class of argument was published in the newspapers and carried to such an extent that many of our conservative and industrious workmen, who were staunch Union men, became very much annoyed at being held up and advertised all over the country

as pauperized and poverty stricken individuals and whose families both socially and mentally were far below the miners' families in other States. In reality the conditions existing among them and their families both socially and from a domestic standpoint, together with the compensation they receive for their labor in the Kanawha and New River Valleys will compare favorably, as a general rule, with the miners' conditions and the compensation they receive in any State on the American continent or with any other class of unskilled labor in the United States.

Apart from this, although to some extent in sections rugged and rocky, the Kanawha and New River Valleys form beyond any question of doubt one of the healthiest mining communities in the Union, and there is as much provision made in the shape of schools of all grades and at every desirable point for the benefit of workmen's children as there is in any other section of the country where conditions and population are equal.

It is a well understood fact by all men that in union there is strength and all fair minded men accord to the laboring masses, as well as to the capitalists, the right to combine in order to promote and protect their interests. But under all circumstances truthful statements and fair dealings ought to be the ruling guides by which the agents of such organizations should always govern their utterances and especially so when the reputations of a State's citizens in general are in question.

Previous to the strike no effort had been made to prevent the perfecting of the labor organizations and had no strike been called there is no doubt but the Kanawha and New River Valleys would now have been organized almost to a man and in time would have been recognized all along the line in a peaceful manner and without the injury and loss it caused to the workmen and citizens in general of this community.

During the months of June, July, August and September, 1902, the number of men at work in the various mines wavered back and forth from 500 to 1,000 men. In the month of October a decided change had taken place and after a careful canvass of the various mines in the New River region it was found that fully 3,000 men had resumed work in that particular section. Since that date the number has gradually increased and at this date, June 30, 1903, there are fully 6,500 men at work in the New River region under the same conditions and agreements as existed previous to the inauguration of the strike, with the exception that an advance of 5 cents per ton to the miner and a substantial advance was given to all day men by operators of this field voluntarily.

It must be admitted, however, that large numbers of the men now employed in the New River field are aliens to the State and country and are inexperienced in the business of mining, and in many instances making very undesirable residents in our midst, as we are an advanced and progressive people.

In the Kanawha end of this Third District there are over 3,000 miners at work. An agreement was made in the fore part of October by and between the workmen and operators whereby an advance was granted to miners and day laborers, pay day every two weeks, and payment by the short ton established and the United Mine Workers' Union virtually

recognized. Since that agreement came into operation there have been more men at work in this particular section than at any other period, and there seem to be as much satisfaction and harmony, as a general rule, between the employer and employe as existed previous to these arrangements.

As a general rule the greatest proportion of experienced and practical miners are staunch union men, hence there are at present more good practical miners in the Kanawha coal field where less danger exists and fewer practical miners in the New River field where greater danger of various kinds exists and will not only continue to exist but will undoubtedly increase in the future as the nature of the mines which are now being developed in some sections of the Third District will amply warrant an assertion of this kind.

At the beginning of the past year there were in operation and shipping coal 116 mines and at the close of the year there were 136 mines, making a gain of 20 mines. Twelve of these mines, which are located on the north side of the Great Kanawha river and west of Gauley river, are under the supervision of the Second District Inspector and the remaining 124 mines under the supervision of the Third District Inspector.

During the past year I have made 282 inspection visits to the various mines under my charge. This does not include 30 visits made in connection with and for the especial purpose of investigating the cause of fatal accidents, all of which were properly written up and forwarded to your office.

The mines, as a general rule, throughout the Third District are in a fairly good condition from every standpoint except, however, some of the old and partly exhausted mines where pillars are being robbed out in some sections. This creates conditions temporarily of an undersirable nature over which the management, practically speaking, has in some instances no control and which have to be dealt with in detail as best they can under the conditions existing when these difficulties present themselves both with regard to ventilation, drainage and other conditions. I feel justified in saying that I am convinced from personal observation that all necessary care and caution, as a general rule, are exercised by the various inside managers to protect the lives of the workmen and the property entrusted to their care and to make matters as comfortable and satisfactory as circumstances will allow.

During the past year a good many improvements have been made at the various mines and especially so at mines which have only been in operation a short time and at those which are now being developed. The principal proportion of these improvements consists of dwelling houses of an improved nature.

There are now installed in the District and in use at the various mines 160 steam boilers, 29 electric plants, 32 electric motors, 77 electric mining machines, 20 electric pumps, 27 rope haulages, 19 steam locomotives, 13 compressed air plants, 94 compressed air mining machines and one compressed air locomotive.

There are also 4 new electric plants now being installed. Sixty of our mines are ventilated by fan power, an increase of 9 since 1901; 35 by

regular furnaces of various dimensions and 20 by fire-baskets and natural means. Those mines ventilated by natural means are principally new mines recently opened and those immediately on the tops of mountains where small areas of coal are being worked and air-ways can be opened up with slight expense when necessary for ventilation and drainage purposes.

In the latter part of the year 1901 there were in operation in this section of the District 23 electric and 15 compressed air plants, 40 electric and 95 compressed air mining machines, 27 rope haulages, and 14 steam locomotives (which were used exclusively to haul on roads from the drum houses to the drift mouths). If reference is made to the above section of this report it will be seen that the electric power is making rapid progress while the other systems are about at a standstill or to some extent falling back. Two large air plants and a number of air machines have been thrown aside and dismantled during this period.

During the past year very little improvement has been made in the way of coke plants, the only firm building ovens being the Low Moor Iron Co., which has now under way 100 new beehive ovens at the Kay Moor No. 1 Mine.

During the past year the following fatal accidents occurred, omitting all the mines on the north side of the Great Kanawha river west of Gauley river there are 39 gas and splint coal mines including Ansted and Gauley river mines at which there are 2,111 men employed. In this section of the District 4 fatal accidents occurred; one miner by fall of top coal at Mt. Carbon, one miner by coming in contact with electric wires at Crescent No. 1 and two boys by moving coal cars on tramroad at Gauley Mt. Mines at Ansted. Along the main line of the C. & O. R. R. from Hawks Nest to Quinnimont, including all mines on Keeney and Laurel Creeks, there are 35 mines employing at present 2,240 men. In this section 4 fatal accidents occurred: 2 drivers were killed on tramroad at Ballinger No. 1, one miner by fall of slate at face of room at Cliff Top and one driver at Greenwood by falling off car on steep grade.

On the south side of New River, including all mines from Hawks Nest to Thurmond, there are 16 mines employing 1,113 men. In this section 7 fatal accidents occurred. At New Caperton, one laborer by blast; Red Ash, one motor man by fall of slate while getting electric motor on the road; Rush Run, one man on incline plane, one boy kicked to death by mule and one miner by fall of slate at face of working place; Rend Mines, 2 miners by fall of slate at face of working rooms.

On the Big Loup Creek Branch of the C. & O. R. R. there are at present 20 mines employing 2,450 men. In this section 14 fatal accidents occurred. At Prudence, 2 miners one by fall of slate at face and another by exploding keg of powder; Collins Colliery, 5 men were killed, 3 at face by falls of slate and 2 while working day work taking down slate on main haulway; Sun Mines, one miner at face by fall of slate; Derryhale Mine, one driver by car jumping track and knocking timbers out and letting slate down upon him; Dunloop Mine, one miner by fall of slate at face of room; Turkey Knob Mine, one miner by fall of slate while working on pillars; Scarbro Shaft Mine, one mine laborer while loading coal at face of

room by fall of slate; Whipple Shaft Mine, one machine runner by fall of top coal and slate at face of working place; Stuart Shaft Mine, one sinker by falling out of bucket while going up shaft.

On the Piney Branch of the C. & O. R. R. at present there are 14 mines and about 700 men employed. In this section 4 fatal accidents occurred; one at the Royal Mine, a driver after his day's work was done was riding out on a mule and by some means his foot became fast in the harness when he fell off and was dragged to death by his mule; one miner was killed at the Wright Mines and 2 in the Stonewall Mines by falls of slate at the face of their respective rooms.

By carefully looking over the above list of accidents it will be seen that 19 of them occurred at the faces of the miners' working places and at a point, where, practically speaking, they are entirely responsible for their own safety.

A careful investigation of the above casualties reveals the fact, as it has done on almost all previous occasions, that the greatest proportion of all these accidents occurs to men who have been employed in coal mines long periods of time and who may be considered experienced and practical miners. It is also a fact that during the times when for any reason the mines are running slow and the miners only working half time, or such a matter, more accidents occur than at any other time. Take for instance in the month of June, 1903, the works ran less than half time and during that month in the New River field six miners were killed and one severely injured by falls of slate at face of working places, and three drivers were killed by being run over by cars they were handling.

It is very evident that for a reduction of accidents miners and others working in coal mines will have to be more careful in examining their places before starting to work and give more attention to the work in hand during their hours of employment, or all laws and regulations that can be enacted for this purpose will have but a very small effect in the way of reducing these fatalities.

It is worthy of notice, and I wish to state that in passing over the District, I find the railroad people very active. Long distances of the C. & O. R. R. main line have been double-tracked. The Piney and Big Loup Creek Branches are being extended in various directions. A new railroad, said to be the Wabash R. R., is being built, commencing on the Great Kanawha river at Deepwater in Fayette county and extending through Raleigh county. On this route several squads of workmen are busily engaged.

These roads are all passing through territory which are underlaid with the New River and Pocahontas Smokeless Coal seams. In some sections of this field the coal seams or some of them crop out above water level and in others shafts ranging in depth to hundreds of feet will have to be sunk to reach them.

In closing these remarks I wish to say that as there will be no meeting of the Legislature for general work previous to our next annual report I have purposely omitted making any suggestions as to changes or additions to our mining laws.

I also wish to thank you sincerely for your assistance and advice

during the past year and extend my thanks to all our mine managers, mine bosses and workmen in general for the courteous and considerate treatment I have received at their hands and for the prompt and business-like manner with which they have received and carried out any suggestions I have made.

Most respectfully submitted,

EDWARD PINKNEY,

Mine Inspector, Third District W. Va.

MONTGOMERY, W. VA., May 22, 1903.

MR. GEO. JONES,

General Manager Star C. & C. Co.,

Red Star, W. Va.

DEAR SIR:—

I find it will be an absolute necessity, in order to keep your Star Mine reasonably safe, to put in a more powerful fan. The aggregate length of the airways is upwards of 26,000 feet. The present fan is such that during the summer months when the resistance caused by the different temperatures is greatest the results are much below what would constitute absolute safety.

In the winter the ventilation is always much better than in summer and especially so in a dip mine such as yours. This condition of affairs is brought about by the difference of the existing temperatures. For instance, when the temperature is higher out of doors than it is inside of the mine the air in the mine is heavier than the air outside and practically speaking has to be pumped out. On the other hand during the winter months the air outside the mine is heavier than the inside air and naturally rushes in down grade and assists to push the heated and lighter air out.

I wish also to call your attention to the fact that as your airways increase in length they increase in resistance and diminish in proportion your air currents and especially so the intake and outlet amounts, if all the doors and stoppings be in good order and the leakage small.

The following figures may be of interest to you: on November 15th, 1899 the intake air current at your mine was 24,000 cubic feet; on November 19th, 1901, 19,800 cubic feet; February 25th, 1902, 20,300 cubic feet; May 19th, 1902, 18,300 cubic feet; November 10th, 1902, 20,050 cubic feet; and on May 19th, 1903, 14,900 cubic feet. At the time all the above measurements were made the fan was making about the same number of revolutions. From the measurements taken on the 19th of May, 1902, and those on May 19th, 1903, it will be seen very plainly what effect distance and existing conditions bring about. The doors and stoppings have all been recently overhauled and are in excellent condition. The result is that the air has now to travel a much longer route and necessarily requires more power than the present fan has to keep a sufficient quantity of air circulating in a mine of such proportions as the Star Mine. Distance is a very important factor in regard to the ventilation of a coal or any other mine.

Suppose that your fan, which is about a 10-horse-power fan, was guaranteed to give you say 40,000 cubic feet per minute when your airways were

10,000 feet in length. They are now approaching 26,000 feet and will continue to advance for some years to come. In order to land 40,000 cubic feet of air at the head of your mine now you require not less than a sixty horse power fan and I would advise that when the change is made to exceed this even by forty more. From the fact that I am strongly of the opinion you will need a very healthy ventilation in all your future developments to protect your property and for the safety of your workmen.

The air currents at the head of all entries are barely sufficient for present requirements and should any unusual conditions arise there would be danger in a short time.

Hoping you will make every endeavor to make this change as soon as possible, I remain,

Yours truly,

EDWARD PINKNEY,
Inspector Third District, W. Va.

MONTGOMERY, W. VA., Aug. 10, 1903.

MR. GEO. JONES,
General Manager Star C. & C. Co.,
Red Star, W. Va.

DEAR SIR:—

On my arrival at home I found yours of the 30th ult. In regard to your inquiry about measurements and water gauge as taken at your Star Mine on the 18th of June, would say that I am almost sure they were correct. The water gauge was placed on the separation doors, leading immediately from the intake to the return airway, a short distance from the intake opening and a short distance behind the fan.

The mine was not running and all the doors were closed when this test was made, which, of course, necessitated the air currents traveling the entire circuit of the mine and encountering all the frictional resistance that exists in the entire route, less what escapes at shorter distances through door stoppings, etc.

The airways both intake and return are cramped in some sections and ought to be enlarged and if possible duplicated. If you will refer to my letter of May 22nd you will observe that I said in that letter that all doors and stoppings were in excellent order which they undoubtedly were.

Your fan is something after the order of the Stine fan and gives much better results than the ordinary disc fan. The measurements to which you refer are as follows: at the intake, speed of current 320 per minute; area of airway 49 feet; water gauge 7-10 in.; speed of current in return airway 360 feet; area 47 feet; diameter of fan 10 feet; and fan making 120 revolutions or more. The temperatures were not taken but I am satisfied they were much higher outside than in the mine. The mine is a dip mine in all the principal developments and more difficult to ventilate in hot periods than in cold.

In regard to duplicating and enlarging your airways, the suggestion is a good one and no doubt will have to be done if all the ventilating currents have to be brought from and taken out at front openings as is done now. However, the best arrangement when this becomes necessary would be to

sink a shaft at back of property for an outlet and have both front openings for intakes, which would, practically speaking, give you all past developments for an intake to the point of first cross entries that are being operated at which point the volume could be split and under this system the frictional resistance would be reduced to a very small consideration.

The calculation made by the fan company are perfectly correct theoretically and if you will refer to my letter of May 22nd you will observe that I recommend that not less than 100 horse power fan be installed. This would have brought your ventilation up to something over 50,000 cubic feet under existing conditions if necessary and a much larger quantity than this when the airways are duplicated or enlarged or when in the future an air shaft may be sunk at the back of the property, which I think for other reasons it may be desirable to do.

I am anxious for you to put your mine in a safe and satisfactory shape and I am satisfied that if you install a 125 or 150 horse power fan, enlarge or otherwise improve the airway where it can conveniently be done it will give entire satisfaction to all concerned.

Hoping the above will have your approval, I am,

Most respectfully yours,

EDWARD PINKNEY,

Inspector Third District, W. Va.

GENERAL SUMMARY OF THE THIRD DISTRICT FOR THE
YEAR ENDING JUNE 30, 1903.

COUNTY.	EMPLOYEES.										PRODUCTION.				
	No. of Mine Openings.	Total No. of Inspections Made.	No. of Written Reports Made.	Inside.					Outside.			Grand Total.	No. of Men Killed.	Coal. (Tons of 2,240 lbs).	Coke. (Tons of 2,000 lbs).
				Pick Miners.	Machine Miners.	Mach. Runners and Helpers.	Laborers.	Total.	Laborers.	Coke Workers.	Total.				
Fayette	120	...	*240	4,422	1,230	335	1,853	7,840	1,243	844	2,087	9,927	35	4,075,324	437,090
Raleigh	16	...	32	382	...	...	81	463	43	...	43	506	4	244,088	...
Nicholas	7	...	10	44	20	6	7	77	21	...	21	98	..	7,645	...
Totals...	143	282	282	4,848	1,250	341	1,941	8,380	1,307	844	2,151	10,531	39	4,327,057	437,090

* This includes 27 written reports of inspections made by Mr. E. A. Henry, of the Second District.

THIRD MINING DISTRICT.

Edward Pinkney, Inspector.

FAYETTE COUNTY.

MORRIS CREEK COAL CO.

No. 197. *Morris Creek Mine.*—This mine has only been opened up a short time and is located on Morris Creek tributary of the Great Kanawha river and on the Morris Creek branch of the C. & O. Ry., about 2 miles south of Montgomery. The developments are in the Kanawha or Winifrede seam, and are reached by a plane about one thousand feet in length. As yet no shipments have been made. The principal work now going on is the building of the tipples, houses, etc., and no inspection has yet been made.

MR. TODD, Supt.

DAVIS, GORDON & CO.

Nos. 198 & 199. *Eureka Mine No. 2.*—These are drift mines located on Morris Creek, a tributary of the Great Kanawha river, and on the Morris Creek branch of the C. & O. Ry., about 2 miles south of Montgomery. The developments are in the No. 2 Gas coal seam, which at this point is found at railroad level and the product has to be elevated in order to screen, &c. The seam varies in thickness from 4 to 5 feet and is usually soft and easily mined. At present the miners receive 45 cents per short ton run-of-mine for digging coal. The operation is principally conducted on the double entry system. Ventilation is produced by a ten foot centrifugal fan, and the product hauled from the interior of the mine by an eight ton electric motor of Jeffrey type. The latest inspection during the year was on the 15th day of May, when the mine with some exception was found in a satisfactory condition and much improved since my previous visit. It gives me pleasure to say that the present management is using every effort to get the concern into a better condition than has existed for sometime past.

GEORGE FRAZIER, Supt.

BRAD HOWERY, Mine Boss.

Eureka Mine No. 5.—This mine is operated by Davis, Gordon & Co., and is located on the same lease as the above No. 2 mine. The developments are in the No. 5 Splint Block seam which ranges in thickness from 4 1-2 to 6 feet. The seam is reached by a 1730 foot plane, diameter of drum 14 feet; thickness of rope 1 1-8 inch steel. The covering of this seam is light as a general rule. The developments are principally on the double entry system and the ventilation natural. The mining is principally done by electric mining machines and the workmen paid by the day. When latest inspection was made during the year this operation was found satisfactory in every detail.

At both the above mines the requirements of the Mining Law in regard to the use of the proper oil, keeping on hand all requirements for the removal of injured workmen, &c., is apparently observed, and every reasonable effort used to have the workmen to do likewise. The number of men usually employed at both mines is about 125.

GEORGE FRAZIER, Supt.

BRAD HOWERY, Mine Boss.

MECCA COAL & COKE CO.

No. 200. *Mecca Mine No. 2.*—This is a drift mine located on Morris

Creek, a tributary of the Great Kanawha river, and on the Morris Creek branch of the C. & O. Ry., 2 miles south of the town of Montgomery. The product of the No. 2 mine is Gas coal. It is usually soft and easy to mine. The seam ranges in thickness from 4 to 5 feet and is found at this point tipple height. There are two openings, one on each side of the tipple. The pick miners are paid 59 cents per ton after the product has been screened over 1-2 inch screen. Three electric mining machines are regularly operated in this mine, and the workmen in connection therewith are usually paid by the day. The operations are mostly conducted on the double entry system and the ventilation is produced by two 12-foot force fans, one stationed at inlet and another about 3,000 feet from daylight, working in union with each other, which gives very good results. There is a first class electric plant installed at these mines, and all the product is hauled by two ten ton motors. The latest inspection of this mine during the year was made on the 12th day of June, at which time all arrangements, including conditions of ventilation, haulways, drainage, observance of all mining laws, &c., were found in a satisfactory condition, and being apparently regularly observed.

JOHN CARVER, General Manager.

W. H. THOMPSON, Mine Boss.

No. 201. *Mecca Mine No. 5.*—This mine is operated by the Carver Bros., and is developed on the same lease as the above No. 2 mine. The No. 5 or Flint Block seam is operated, which ranges in thickness from 4 to 6 feet and is reached by a plane 1,925 feet in length, 12-foot drum, 1 1-4 inch steel ropes and load two cars, each car having a capacity of two gross tons. The working system necessary is the double entry. Ventilation is natural. The seam is closely contingent to the summit of the mountain. The areas are to some extent limited, and drifts for ventilation, drainage or other purposes can be easily and cheaply made. The latest inspection of this mine during the year found things in a satisfactory condition from every standpoint. About 130 men are usually employed in the No. 2 mine and 40 in the No. 5 mine.

JOHN CARVER, General Manager.

W. H. THOMPSON, Mine Boss.

ECONOMY FUEL CO.

No. 202. *Coal Valley Mine.*—This is a slope mine located on the Great Kanawha river and on the main line of the C. & O. Ry., at the town of Montgomery. The seam operated is the Eagle or No. 1 Gas, which is about 3 feet 6 inches to 4 feet in thickness. The coal is soft and easy to mine as a general rule, and the pick miners were paid 45 cents per short ton for run-of-mine for mining. The developments are principally conducted on the entry and airway system. Ventilation produced at present is by a small furnace, which is inadequate for the requirements of the mine. Recently there has been installed a steam rope haulage and a small electric fan and two electric mining machines. The mining by machinery has as yet been paid for by the day. My last visit to this mine during the year was on the 14th day of May, at which time I found all requirements in a satisfactory condition, except that in some sections of the mine it was below a satisfactory standard; this, however, I am assured will be remedied in a short time by the installation of an electric fan. The requirements of

the Mining Law in regard to oil, keeping on hand the necessary stretchers, &c., for removing injured workmen, are apparently properly observed in every detail. Up to date about 70 men are usually employed.

W. A. JONES, Supt.

CALVIN MORRIS, Mine Boss.

W. R. JOHNSON.

No. 203, 204 & 205. *Crescent Mines Nos. 1, 2 & 5*.—These are drift mines located on the Great Kanawha river and C. & O. Ry., about 1-2 mile east of Montgomery. The developments of the No. 1 are in the Eagle seam, and are principally on the entry and airway system. The seam varies from 3 feet 8 inches in thickness to 4 feet and is soft coal. The pick miners are paid 49 cents per short ton. There is considerable coal mined in these mines by machinery, there being about six air and one electric mining machines generally in operation. The prices paid are by contract, which is 41 1-2 cents per short ton. The product is all hauled by mules. Ventilation is produced by a 10-foot centrifugal exhaust fan which gives very great results.

The No. 2 operation is in the Coal Valley seam and is also soft coal ranging in thickness from 5 feet to 5 feet and 6 inches. The work now consists of robbing pillars, and in a very short time this mine will be exhausted and abandoned. Ventilation is produced by a fan which gives very satisfactory results. The work is all pick work, and the prices paid are the same as in No. 1.

The No. 5 operation is in the No. 5 Splint Block seam and is hard coal. This seam ranges in thickness from 4 feet to 5 feet, and in some sections has two small slate bands about the middle of the seam. The miners are paid 47 cents per short ton for run-of-mine. The principal portion of work is pillar robbing, and what work there is on the solid is conducted on the double entry system. The ventilation is natural, and owing to the altitude and the many different openings existing, the ventilation is only fairly good at all points. The last visit to these mines during the year was on the 15th day of June. At that date all arrangements, including ventilation in all the mines, conditions of haulways, excepting, however, the drainage, which is only moderate, machinery and mechanical appliances in use, &c., were all found in a satisfactory condition and apparently safe in every detail. The Mining Law in regard to the proper oils, necessary requirements for removing injured workmen, were apparently properly and regularly observed by the officials of the company, and every effort used to compel their workmen to observe them also. There are usually employed at these mines about 150 men. The product is shipped by river and rail.

THOS. A. BARTLAM, Supt. LOU WALTERS & A. J. KIRBY, Mine Bosses.

CARVER BROTHERS.

Nos. 206, 207, 208, 209 & 210. *Edgewater Mines Nos. 1, 2, 3 & 5 and Eagle Mine No. 1*.—This group of mines are all drift and are located on the Great Kanawha river and on the main line of the C. & O. Ry. The developments of the No. 1 mine are in the Eagle seam and is soft coal averaging in thickness about 4 feet. The work is conducted on the airway and entry

system. The openings are reached by a plane 175 feet. The miners are paid 45 cents per short ton. The product is hauled by an electric motor, and ventilation is produced by a 16-foot centrifugal exhaust fan which gives good results.

The developments of the No. 2 and No. 3 mine are in the Coal Valley or No. 2 Gas coal seam, which varies in thickness from 4 to 5 feet. The pick miners are paid 45 cents, and the machine miners by contract at 33 1-4 cents per short ton. Three electric mining machines are in operation in these mines. There are two separate tipples, and the product is hauled from the No. 2 by a 12-ton electric motor, and from No. 3 by mules. These two openings are broken through into each other and are ventilated jointly with one 16-foot exhaust fan. At present the ventilation in these two mines in some sections is only moderately good, brought about by the caving in of some sections of the main airways during the strike. Efforts are now being made to remedy the defect. The plane by which these openings are reached is about 100 feet in height.

The No. 5 developments are in what is known as the No. 5 Splint Block Coal seam, which is hard coal. The seam varies in thickness from 5 to 6 feet and is reached by a plane 1,742 feet in height, 13 foot drum and 1 1-8 steel ropes being used, load three cars, each car having a capacity of two gross tons. The developments are principally conducted on the double entry system, but at present the greater portion of the work consists of robbing the pillars. The product is all handled by mules and the ventilation is natural. Like all other mines operating in this seam the ventilation, together with the number of openings at different points, make the ventilation only fairly good. When the last inspection of these mines were made on the 4th and 12th days of June, the ventilation, conditions of haulways, drainage, together with all mechanical appliances and machinery in use, was found in a satisfactory condition and apparently safe in every detail (excepting the ventilation as stated above in No. 2 and No. 3 mines). All mining laws are apparently observed and enforced.

The product of these mines is shipped by both river and rail, and the usual number of men employed is about 250. During the year this Company had their electric plant destroyed by fire which has been rebuilt recently.

The Eagle Mine No. 1.—This operation is at present being worked on a small scale. The Eagle seam averages about 3 to 3 1-2 feet and about 10 to 12 miners are being employed. The mine is ventilated by a ten foot fan and the coal is hauled by a small electric motor. When last inspected during the month of May it was found satisfactory.

There were eight inspections made at these various mines during the year and four certificates issued the company.

ENOCH CARVER, Gen'l. Mgr.

JAMES CARVER, Mine Boss.

JAMES DAVIS, Mine Boss.

JOHN THURMOND, Mine Boss.

GORDON COAL & COKE CO.

Nos. 211 & 212. *St. Clair Mines Nos. 1 & 2.*—These two mines are drift mines located on the Great Kanawha river about 1 1-2 miles east of

Montgomery, and on the main line of the C. & O. Ry. The No. 1 operation is in the Eagle seam and is conducted on the double entry system. The average thickness of the seam is from 4 to 6 feet with a slate parting about 4 to 6 inches. The pick miners are paid 45 cents per long ton. There is now being operated one electric mining machine and those operating same are paid by the day. The mine openings are reached by a plane 300 ft. in length. The ventilation is produced by a ten foot exhaust fan which gives very good results.

The No. 2 operation is in the No. 2 Gas seam or Coal Valley, and like the No. 1 is soft coal. The developments are principally conducted on the double entry system and ventilation is produced by a ten foot fan. This mine opening is reached by a plane 638 feet, and all the product hauled by an electric motor. My last inspection of these mines was made on the 3rd day of June, at which time all arrangements, including ventilation, condition of haulways, drainage, together with all machinery in use, were found in a satisfactory condition and in excellent repair, except that the ventilation in the No. 2 seam was inadequate; this was caused by a heavy fall of slate in the principal return airway which occurred during the strike and has not yet been overcome. Arrangements are now being made to sink a slope at the back of the workings which will remedy this defect. The product of these mines is shipped by river and rail. The mining laws regarding the use of proper oils, headlights on moving trains, arrangements for moving injured workmen, are apparently observed in a proper and regular manner and regularly enforced. About 150 men are as a general rule employed in these mines.

C. W. BURNS, Mine Boss, Mine No. 1.

GEORGE FRAZIER, Supt.

WM. KNIGHT, Mine Boss, Mine No. 2.

No. 213. *The Black Diamond Mine.*—This mine has for sometime, and is at present standing idle. It is thought that in the future arrangements will be made to extend the incline plane up to the No. 5 Splint Coal on this lease.

MT. CARBON COLLIERY CO., LTD.

Nos. 214, 215 & 216. *Vulcan, South No. 2 & Excelsior No. 1.*—These are drift mines located on Armstrong Creek, a tributary of the Great Kanawha river and on the Powellton branch of the C. & O. Ry., about 8 miles south from the town of Mt. Carbon. In the Vulcan No. 1 & 2 openings what is known as the Powellton seam is being worked. This is a soft coal seam and is only found in some sections of the Kanawha coal field, and when found is located about middle ways between the No. 1 & No. 2 Gas coal seams, and varies in thickness from four to six feet, and usually has a small slate band in the center of the seam. It is an excellent coal for gas, coking and steam raising purposes. The coal is mined principally by pick miners who are paid 40 cents per short ton, run of mine. At present there are two compressed air machines being operated in the mines, and the men operating same are usually paid by the day. The developments are principally conducted on the double entry system, and ventilation is produced by a ten foot disc fan installed in the No. 1 mine near the face of the advanced

working and is operated by compressed air which gives very good results. The product is hauled from this mine by a compressed air locomotive. The plane is about 350 feet; drum ten feet in diameter and ropes one inch, load, one car with capacity of 2 1-2 gross tons.

The Excelsior mine is owned and operated by the Mt. Carbon Colliery Company, and is located about three miles distant from the Vulcan mines. The seam worked is known as the Excelsior or Grey Splint seam. It is reached by a plane 1,800 feet in length, the drum in use being 12 foot in diameter, and ropes 1 1-8 inch steel, and load two cars the capacity of each being 1 1-2 gross tons. The seam varies in thickness from 3 to 4 feet, and the mine is developed principally on the double entry system. At present the ventilation is natural and in some sections very moderate. The mining and hauling is all done by electric power, there being four electric mining machines and one eight ton electric motor regularly operated. The miners are paid 3 1-4 cents per bushel for pick mining after the coal is screened over a 1 1-2 inch screen. The last inspection of these mines was made on the 24th day of April, at which date all arrangements, including ventilation, conditions of roof, etc., haulways, drainage, strength and condition of machinery, and mechanical appliances in use, were found in a satisfactory condition and apparently in safe repair, excepting the condition of ventilation in some sections of the Excelsior mine. All mining law requirements are apparently duly observed and every effort on the part of the management is exercised to have the workmen also comply therewith. The usual number of men employed is about 300 or 350, and the product is shipped by river and rail.

During the year three inspections were made of mines No. 1 and No. 2 and two inspections were made of Excelsior mine, and certificates were issued the company.

DAVID T. EVANS, Supt.

JOHN I. ABSALOM, Mine Boss.

GREAT KANAWHA COLLIERY CO. LIMTD.

Nos. 217, 218, 219 & 220. *Digby & Mt. Carbon Mines, No. 1, 2 & 5.*—These are all drift mines located on the Great Kanawha River and on the main line of the C. & O. Ry., at Mt. Carbon, about 2 1-2 miles east from the town of Montgomery. At the No. 1 mine the Eagle or No. 1 Gas coal seam is worked, but at present only on a small scale. The seam ranges in thickness from 2 feet and 10 inches to 3 feet, and at this point is unusually hard for this seam of coal. The mine is reached by a plane about 350 feet in length. The developments are being principally conducted on the double entry system. The ventilation is natural as yet and very moderate.

At the Digby and Mt. Carbon No. 2 the Coal Valley or No. 2 Gas coal seam is worked. These two mines have each a river and railroad tippie about 3-4 of a mile distant from each other. The underground development, however, constitute one extensive mine. The Digby opening is reached by a plane 1,200 feet in length, and the Mt. Carbon by a 900 foot plane. The mining is done in both mines partly by pick miners and partly by electric mining machines. The pick miners receive 45 cents per short ton and other considerations. The machine operators are all paid principally by the day. In the Digby mine the seam ranges in thickness from

4 to 6 feet, and in the Mt. Carbon from 4 feet to 4 feet and 6 inches, including a slate band near the center of the seam. The product is hauled from the Mt. Carbon mine by two electric motors, 7 and 10 tons. There are five electric mining machines operated in the Mt. Carbon and two in the Digby mine. The developments are principally conducted on the double entry system. Ventilation at present is natural, although there is installed at the west end of the workings a ten foot disc fan which can be operated when necessary to do so.

In the No. 5 mine the Splint Block seam is worked, which is hard coal. This seam averages about six feet in thickness and is reached by a plane 1,800 ft. in length. The work now in progress consists of robbing pillars, and in the near future this mine will have to be abandoned. The usual hard coal prices paid at the other mines prevail at this mine. The last inspection made of these mines during the year was made the 26th and 29th days of April, at which time the ventilation in the Digby mine was found in a very moderate condition, principally due to neglect in keeping doors in repair and stoppings in proper manner. All other arrangements, including the ventilation in the Mt. Carbon mine, haulways, drainage, mechanical appliances, etc., in use were found in a satisfactory condition and safe in every detail. The requirements of the Mining Law were also found to be fairly observed, regarding oil used, keeping stretchers on hand at the mine, headlights on moving trains, etc. The product of these mines is shipped by rail and river. The usual number of workmen employed at these mines is 250. Three inspections were made of each of these mines during the year and three certificates issued to each company.

R. J. STEGALL, Supt.

CHARLES EADS, Mine Boss.

CARDIFF COAL CO.

No. 221. *Kimberly Mines, Nos. 1, 2 & 3.*—These are drift mines located on Armstrong Creek, tributary to the Great Kanawha river, and on the Powellton branch of the C. & O. R. R. All three operations are in the Coal Valley or Gas Coal seam, which is a soft coal averaging in thickness from 4 to 6 feet. All of these mines have been recently opened and the No. 1 mine is as yet the only one shipping coal. This coal is principally mined and hauled by electric power. The company has installed an electric plant and is operating one motor and four mining machines. The developments are all started and will no doubt be conducted on the double entry system. An inspection was made of this plant on the 29th day of April when all arrangements of every character were found substantial, up to date and apparently safe in every respect. The out-put of these mines will be shipped by rail. The number of men employed at this date were about eighty.

During the year one inspection was made of each of these mines and certificates issued.

WM. A. CARVER, Supt.

JOHN FORBES, Mine Boss.

GAULEY MOUNTAIN COAL CO.

Nos. 222 & 223. *Gauley Mountain Mines Nos. 1 & 2.*—These are drift mines located on Mill Creek, a tributary of New River, and on the Gauley branch of the C. & O. Ry., about three miles north of Hawk's

Nest and at the town of Ansted. Both these operations are in the No. 2 Gas coal seam. The work in the No. 1 is all pillar and nearly exhausted. The No. 2 operations consist of 16 separate drift openings branching on two separate tram roads leading along the mountain side on what is known as Rich Creek. The seam averages from about 5 to 6 feet in thickness. Each of these openings is ventilated separately with a small basket which gives satisfactory results under existing conditions, except the No. 1 and No. 2 openings of this group, which are ventilated with a 6 foot high speed fan. Two-thirds of all the coal produced in these mines is mined with compressed air mining machines. The price paid for pick mining is 44 cents per long ton. There are 16 mining machines operated for which 38 cents is paid for all machine mined coal per ton, the company supplying all power and machines free of cost. The coal is hauled by a tail-rope haulage and three small steam locomotives. The last inspection was made of these mines during the year on the 22d day of June, at which time the ventilation in both mines, the haulways and drainage condition, together with condition of all mechanical requirements, was found in a very satisfactory condition and apparently safe in every detail. The Mining Law in general was being carefully observed by all the official force, who endeavored to have their workmen to also conform to the requirements. The product of these mines is all shipped by rail. The mines usually employ about 350 to 400 men and boys.

RALEIGH TAYLOR, Supt.

D. S. DOOLY, Mine Boss, Mine No. 1.

JAMES MARTIN, Mine Boss, Mine No. 2.

LOUP CREEK COLLIERY CO.

No. 224. *Loup Creek Mine*.—This mine is located on Loup Creek, a tributary of the Great Kanawha river, and on the Deep Water branch of the C. & O. Ry., about eight miles south from Deepwater. The operations will be in the No. 2 Gas coal. At present openings are being made and coke ovens and other improvements are now under way.

NEWCASTLE COAL COMPANY.

No. 225. *Gaymont Mine*.—This is a drift mine located on New River on the main line of the C. & O. Ry., about 1 1-2 miles east of Hawk's Nest. The upper seam being worked is known as the Sewell or Nuttallburg seam. It varies in thickness from 2 feet 10 inches to 3 feet and 2 inches. It is a soft coal and an excellent article for coke making and steam raising purposes. The mine openings are reached by a plane 800 feet in length. Developments are conducted principally on the airway and entry plan. Ventilation is produced by a 12 foot Crawford & McCrimmon fan which gives excellent results. The coal is all hauled by mules. About one hundred men have been lately working in this mine. When the latest inspection of this mine was made on the 30th day of June the ventilation, condition of haulways, drainage, etc., were found satisfactory, excepting, however, the conditions and area of the return airway leading to and near the fan, which were found to be inadequate for the requirements. All mining law requirements are apparently observed in regard to the use of proper oils and other requirements, except that there are not enough refuge holes

in the main haulways. Two inspections were made of the mine during the year and two certificates issued to the company.

H. B. CLARKSON, Supt.

J. W. NOBLE, Mine Boss.

ELMO COAL & COKE CO.

Nos. 226 & 227. *Sunnyside & Elmo Mines.*—These are drift mines located on New River on the main line of the C. & O. Ry. The Sewell seam is worked at both mines and varies in thickness from 2 feet and 10 inches to 3 feet and 2 inches. The mine openings are reached by two separate planes about 700 feet in length. The developments are principally conducted on the double entry system, and the ventilation in both mines is produced by fan power. The Sunnyside fan is 6 feet and the Elmo fan 8 feet, high speed disc fans, and are operated by electric power. The greater portion of the coal is mined by electric mining machines. The machine operators are paid by the day, and those shooting and loading coal are paid 38 cents per ton, and pick miners 55 to 65 cents per long ton. The latest inspection of these mines during the year was made on the 17th day of March and at that date the arrangements in both mines, including the ventilation, condition of haulways over which coal was being hauled at the time, drainage, together with all machinery and mechanical appliances in use, were found in a satisfactory condition, substantial, in good repair and apparently safe in every detail. The Mining Law as a general rule is properly observed and regularly enforced. The product is all hauled by mule power and the usual number of men employed is from 90 to 100. During the year three inspections were made at each of these mines and two certificates issued of each to the company.

THOS. C. BEURY, Supt.

W. H. DOWER, Mine Boss, Sunnyside Mine.

A. R. JONES, Mine Boss, Elmo Mine.

MICHIGAN COAL CO.

No. 228. *Michigan Mine.*—This is a drift mine located on New river on the main line of the C. & O. Ry., about 4 1-2 miles east of Hawk's Nest. The seam worked is soft coal and is known as the Sewell seam, which averages in thickness 3 feet and 2 inches. The mine openings are reached by a plane 700 feet in length. The developments are principally conducted on the double entry system. Ventilation is produced by furnace power which for present developments give fairly good results. The coal is produced by both pick and mining machines. The pick miners are paid from 55 to 60 cents, and those loading after the machines 27 cents per long ton. The machine runners are paid by the day. All the coal is hauled by mules. The latest inspection of this mine during the year was made on the 17th day of March, at which time the condition of the mines from every standpoint in regard to ventilation, condition of roadways, air-ways, drainage, machinery in use, etc., was found in a satisfactory condition and apparently safe in every detail. All requirements of the Mining Law in general were also being respected and regularly enforced. Four inspections were made of this mine during the year and three certificates issued to the company.

JAMES BOONE, Supt.

VAL BACHMAN, Mine Boss.

FAYETTE COAL & COKE CO.

No. 229. *Fayette Mine*.—This is a drift mine located on New River on the main line of the C. & O. Ry. at Fayette Station. The operation is in the Sewell or Nuttallburg seam, which averages in thickness from about 3 feet to 3 feet 2 inches. It is a soft coal seam and the uppermost workable seam in the New River formation. The mine openings are reached by a plane 1,000 feet in length. At this mine, as at the majority of the New River mines, monitors are used on the plane to convey the product to the railroad for shipment. The coal is hauled by mules exclusively. The developments are principally conducted on the double entry system, and work is all pick mining. Prices paid are 55 to 60 cents per gross ton. Ventilation is produced by furnace power, there being one of the largest furnaces in this field at this mine, being 6' x 6' x 8" and 10' deep, which gives fairly good results. The latest inspection made of this mine during the year was on the 18th day of March, at which time all arrangements were in a fairly good condition and up to all the requirements of the Mining Law, excepting, however, there are not enough refuge holes or passing places on the main haulage roads. All product is shipped by rail. Usually there are from 50 to 60 men and boys employed at this mine. Two inspections were made of the mine during the year and two certificates issued to the Company.

W. M. BRELLAHAN, Supt.

OLLIE GARRETT, Mine Boss.

LOWMOOR IRON CO.

Nos. 230 & 231. *Kaymoor Mines Nos. 1 & 2*.—These are drift mines located on New River on the south side branch of the C. & O. Ry., immediately opposite Fayette Station. Both operations are working the Sewell seam, which varies in thickness from 3 to 4 feet. The bulk of all the coal produced in the No. 1 mine is mined by compressed air punching machines, there being something over twenty machines in operation. Pick miners are paid 55 cents per gross ton for mining, shooting and loading what they produce under this arrangement. The company furnishes machines and power free of cost. The mine openings are reached by an incline plane 1,000 feet in length, drum 10 feet in diameter; ropes 1 1-4 in. steel, and capacity of monitor 8 tons. The developments are all conducted principally on the double entry system, and ventilation is produced by furnace power. A twenty foot fan was destroyed by fire during the strike, which was supposed to have been done by some evilly disposed person. Arrangements are now in progress to re-install this fan. The product is at present hauled by mule power. There is also now in progress the installation of a powerful electric plant for haulage and other purposes.

The No. 2 mine has only recently been opened up and it is being developed on the double entry system, and ventilated at present by three small furnaces. These mines were inspected on the 15th day of June. The ventilation in some sections of the No. 1 mine was found in only a moderate condition, being brought about principally by some of the return airways being allowed to become partly blocked up during the unsettled period after the miners' strike. The haulways were found satisfactory, the

drainage in some sections good and in others moderate, large quantities of water having accumulated at several points, which not only shut off the working places, but in some instances blocked to a certain extent the airways. These defects are now, however, being attended to and will be remedied in the near future. The Mining Laws, with the above exceptions, are apparently observed in every other detail, and regularly and properly enforced. The output of this concern is all shipped by rail. Usually there are about 150 or 175 men and boys employed in these mines. All machinery and mechanical appliances in use at both these mines are new, substantial and up to date, and apparently safe in every respect. Four inspections were made of No. 1 mine during the year and two inspections of No. 2 and certificates issued to the company.

EDWARD D. WEEKS, Supt.

J. W. McBRAYER, Mine Boss.

HUBERT RAVEN, Supt.

W. BRALLIHAN, Mine Boss.

NEWLYN COAL CO.

No. 232. *Newlyn Mine*.—This is a drift mine located on New River on the main line of the C. & O. R., about 1 mile west of Fayette station. The operation is in the Sewell seam with an average thickness of 3 feet 3 inches. The developments are conducted on the double entry system, and ventilation is produced by furnace power. The mine openings are reached by a plane 500 feet in length; drum 6 ft. in diameter; ropes 1 in. steel, capacity of monitor, 7 ton. The output is all produced by pick miners who are paid 50 and 55 cents per ton, and all other employes are paid by the day. The latest inspection of this mine was made on the 18th day of March, at which time the ventilation, and all ventilating arrangements, together with condition of roof and otherwise, haulways, airways, drainage and the condition of all machinery in use, was found in a satisfactory and apparently safe condition in every respect. The Mining Laws in regard to the proper use of oils and otherwise, were apparently regularly enforced. Three inspections were made during the year of this mine and three certificates issued to the company.

EDWARD THOMAS, Supt.

JOHN THOMAS, Mine Boss.

NUTTALLBURG COAL & COKE CO.

Nos. 233 & 234. *Nuttallburg & Keeneys Creek Mine*.—These are drift mines located on New River on the main line of the C. & O. Ry. The operation of both mines are in the Sewell or Nuttallburg seam, which varies in thickness at this point from 3 1-2 to 4 feet. The Nuttall mine openings are reached by a plane 1,475 feet in length; drum is 12 feet in diameter and ropes 1 1-4 in. steel; capacity of monitor 4 tons. The coal is handled by a 7 1-2 ton electric motor. The developments are conducted principally on the double entry system. Ventilation is produced by a 16 foot Crawford & McCrimmon fan, which gives very good results. There is both pick and machine mining. The pick miners are paid 55 cents, and those loading after the machine, when they do the shooting also, receive 46 cents per gross ton. Machine operators are paid by the day.

The Keeney Creek mine is located about one mile east of Nuttallburg,

and is operated by the same company. The work at present consists principally of drawing pillars. The latest inspection of these mines during the year was made on the 16th day of February, when the ventilation, condition of haulways, airways, drainage, etc., together with all machinery and mechanical appliances in use at both mines, was found in a satisfactory condition and apparently safe in every respect. All the Mining Law requirements regarding the proper use of oils, stretchers to remove injured workmen, etc., is apparently regularly observed, and every effort on the part of the officials exercised to have the workmen to comply with said Mining Laws. All coal is shipped by rail. There are about 130 men and boys usually employed at these two mines. During the year each mine was inspected twice, and certificates were issued to the company.

FRED RAVEN, Supt.

J. W. TULLEY, Mine Boss.

BROWN COAL CO.

No. 235. *Brown's South Nuttall Mine.*—This is a drift mine located on New River on the C. & O. Ry's south side branch line immediately opposite Nuttallburg. The seam worked is the Sewell or Nuttallburg seam, and is a soft coal ranging in thickness from 3 feet 10 inches to 4 feet 2 inches. The mine openings are reached by a plane 1,142 feet in length; drum 10 feet in diameter and ropes 1 1-4 in. steel with monitor capacity of 7 gross tons. The developments are principally conducted on the entry and airway system. Ventilation is produced by an 18 foot Crawford & McCrimmon fan, which gives very satisfactory results. The coal is all mined by pick miners who are paid 55 cents per long ton. The coal is hauled by mules. The last inspections of this mine during the year was on the 17th day of April, at which date the ventilation and all ventilation arrangements were in good condition. The roofing condition on all haulways and airways, drainage, etc., together with all mechanical requirements in use were found satisfactory in every detail and apparently safe in every respect. All mining laws in regard to oils, powder, keeping on hand requirements for the removal of injured workmen are apparently properly enforced. The product of this mine is all shipped by rail. Something over 100 men and boys are usually employed.

JOHN BOONE, Supt.

PHILIP GRAEF, Mine Boss.

BOONE COAL CO.

No. 236. *Boone Mine.*—This is a drift mine located on Keeney's Creek, a tributary to New River, and on the Keeney's branch of the C. & O. Ry. The seam worked is the Sewell, which for some time has been irregular in thickness at this mine. The outlook at present is more encouraging. The developments are conducted on the double and single entry system combined, as the conditions require. The coal is hauled with mules. The mining is all pick work, and the prices paid vary according to the existing conditions, ranging from 55 to 65 cents per ton, with other considerations allowed. The ventilation is natural, and when favorable conditions do not exist is very moderate. However, during the past year or more, conditions have been such that only a small force have been working at this mine. The latest inspection during the year was made on

the 26th day of February, at which time, considering the difficulties to contend with, and other disadvantages caused through strike influence, this mine was in a fairly satisfactory condition. For sometime past the number of workmen employed range from 25 to 40. The Mining Laws are all complied with and enforced by the officers of this company. Two inspections were made during the year of this mine and two certificates issued to the company.

F. A. BOONE, Supt.

MIKE GUIHEEN, Mine Boss.

BALLINGER COAL & COKE CO.

Nos. 237 & 238. *Ballinger Mines Nos. 1 & 2.*—These are drift mines located on Keeney's Creek, a tributary of New River, and on the Keeney's Creek branch of the C. & O. Ry., about 4 miles from Nuttallburg. The operations are in the Sewell seam, which at this point ranges in thickness from 3 feet 4 inches to 3 feet 10 inches. The present openings in the No. 1 mine are reached by a plane 900 feet in length, and a tram road something over 3-4 of a mile. The developments of both these mines are conducted on the double entry system, and the ventilation produced is by three small furnaces which give very fair results, considering the area of the mine and the number of workmen employed in each opening. The coal is mined by pick miners and the price paid 55 cents per gross ton, and in some instances other considerations. The product is hauled by mules. It is, however, the intention of the company to install a steam locomotive on the tram road in a short time.

The No. 2 mine is about one mile distant from mine No. 1, and is reached by a plane 540 feet in length. At both mines the cars are run down a plane to the tippie. The latest inspection of these mines during the year was made on the 24th day of February, at which time the ventilation of both mines was found in good condition. The roof and other condition of haulways in both mines, together with all machinery and mechanical appliances, was found very satisfactory, in good repair and apparently safe in every respect. The drainage condition in No. 1 mine was good, and in No. 2 mine moderate. All requirements of the Mining Law in regard to oil, powder, stretchers and other requirements, were apparently enforced. The product is all shipped over the C. & O. Ry., and the number of workmen employed is usually from 90 to 100 men and boys. During the year two inspections were made of each of these mines and two certificates issued for each.

GEORGE HOLLAND, Supt.

JOHN OHLINGER, Mine Boss.

BLUME COAL & COKE CO.

No. 239. *Blume Mine.*—This is a drift mine located on Keeney's Creek, a tributary of New River, and on the Keeney's Creek branch of the C. & O. Ry., about six miles distant from Nuttallburg. The operations are in the Sewell seam. The average thickness of the seam at present is from 3 feet 8 inches to 4 feet. The mine openings are level with the tippie, which is about 60 feet high. The developments are all conducted on the double entry system, and ventilation is produced by a 10 foot disc fan which gives very good results. The coal is all mined by pick miners, and

the price paid for this work ranges from 55 to 65 cents per gross ton. In some instances where faults or any other disadvantages occur, other considerations are paid. The coal is all hauled by mule power. The latest inspection of this operation was made during this year on the 29th day of June, at which time all arrangements, including ventilation, roofing and all other conditions, except haulways, drainage, strength and condition of all mechanical requirements in use, etc., were found in a satisfactory condition and apparently safe in every detail. The Mining Law in every detail seemed to be regularly observed and strictly enforced. Usually about 150 men and boys are employed in this mine. During the year there were three inspections made of this mine and three certificates issued to the company.

D. W. BOONE, Supt.

THOS. STEAD, Mine Boss.

SMOKELESS COAL CO.

No. 240. *Smokeless Mine*.—This mine is located on Keeney's Creek about 4 1-2 miles from Nuttallburg. The operations are in the Sewell seam, which varies at this point from 3 feet 8 inches to 4 feet and 2 inches. The mine openings are reached by a light grade incline 1,800 feet in length. The developments are conducted on the single and double entry systems combined. Ventilation is natural and as a general rule moderate. All coal is mined by pick miners and the price paid them is 55 cents per long ton. The coal is all hauled by mule power. The latest inspection of this mine during the year was made on the 30th day of June, at which time the ventilation in some sections was very moderate, caused by the airways caving in during the strike period and having not yet been opened up. The condition of the roof on all haulways in this mine is bad, and has to be heavily timbered and regularly attended to. When this inspection was made all entries and operations were properly timbered and apparently as safe as they could be made. The drainage is moderate, the conditions existing making it very difficult and expensive to keep in a satisfactory condition. All other arrangements were found substantial, in good repair and seemingly safe. From 45 to 50 men are usually employed at this mine. Three inspections were made of this mine during the year.

JOHN D. CAMPBELL, Supt.

WM. HALL, Mine Boss.

ROTHWELL COAL & COKE CO.

No. 241 & 242. *Dubree & Quarrier Mines*.—These are drift mines located on Keeney's Creek and the C. & O. Ry. branch line about five miles from Nuttallburg. The operations are in the Sewell seam; it averages in thickness at this point from 3 feet 8 inches to 4 feet. The openings are reached by a plane 500 feet in length, and a tram road 1,200 feet. The developments are conducted on the double entry system, and ventilation is produced by a small furnace which gives fairly good results. The coal is principally mined by electric mining machines; some small amount, however, is mined by pick miners and the price paid is 55 cents per ton. Machine operators are usually paid by the day. The latest inspection of these mines during the year was made on the 30th day of June, at which time all arrangements, including ventilation, condition of haulways, drain-

age, machinery, etc., were very satisfactory. All mining laws in regard to the use of proper oils, keeping on hand stretchers for removing injured workmen, etc., were properly observed. About 75 men and boys are usually employed at these mines. The Quarrier mine has not been in operation since the strike was inaugurated. This company has had its power plant destroyed by fire during the year, supposedly by some evilly disposed person, but same has recently been installed. During the year two inspections were made of Dubree mine, and certificates issued to the company.

HERBERT ROTHWELL, Supt.

WM. CHRISTOPHER, Mine Boss.

VICTORIA COAL & COKE CO.

Nos. 243 & 244. *North & South Caperton Mines.*—These are drift mines located on New River on the C. & O. Ry., 2 miles east of Nuttallburg. The Sewell seam is operated and mine openings are on both sides of the river. The north side openings are reached by a plane 1,360 feet in length, equipped with monitors. The south side openings are reached by a two inch cable something over 2,200 feet in length, stretched from tippie to mine across New River. The outfit is equipped with 2 1-2 ton capacity iron buckets, ropes, etc. The seam in both mines at this point averages about 4 to 4 1-2 feet in thickness, and developments are both conducted on the entry and airway system, each mine having steam rope haulage. The coal in the North mine is all mined by pick, the price for same being 55 cents. In the South mine there is both pick mining and compressed air punching machine mining, the price of 50 cents being paid for pick and for machine 40 cents per long ton.

The North mine is ventilated by furnace, and the South mine by fan power. The latest inspection of these mines during the year was made on the 19th day of March at North Caperton and on June the 10th at the South side. At these times the ventilation in both mines was found in a fairly satisfactory condition, the roofing condition and haulways apparently safe, properly timbered and free from loose slate or obstructions of dangerous character. The drainage as a general rule is very moderate in both mines, and especially so in the South mine, caused to some extent by the mine being stopped for several months owing to drum-house and compressed air plant having been burned down by striking miners, causing thereby stoppage of pump. The requirements of Mining Laws are apparently regarded in the proper manner in every detail. The number of men and boys employed as a general rule in this mine is about 175 or 200. During the year two inspections were made at each of these mines and two certificates issued for each.

FRED STIENBRECKER, Supt.

O. B. CHEWINING, Mine Boss, S. Caperton.

BEN SCHLINGER, Mine Boss, N. Caperton.

CHAPMAN COAL & COKE CO.

No. 245. *New Caperton or Klondike Mine.*—This is a drift mine located on the south side of New River about 2 miles east of Nuttallburg, and on the south side branch of the C. & O. Ry. The Sewell seam is operated,

which averages at this point from 3 feet 8 inches to 4 feet 4 inches. The mine openings are reached by a plane 1,300 feet in length, equipped with 1 1-2 inch steel ropes and 7 ton monitors. The developments are conducted practically on the double entry system, and ventilation is produced by a ten foot exhaust disc fan, operated by electric power which gives good results. The product at present is being hauled by mules. The coal is produced by machine miners, five machines of the Morgan, Gardner & Jeffrey build being regularly operated. The price for pick mining is 55 cents, machine coal for shooting and loading 33 cents, the machine operators all being paid by the day. The last inspection made during the year was on the 11th day of May, when all arrangements, including ventilation, condition of roof on all haulways, drainage, etc., was found in a satisfactory condition, and apparently safe in every detail. The requirements of the Mining Law are also properly and regularly observed, and all efforts to make all workmen comply therewith. Usually from 80 to 90 men and boys are employed at these mines. During the year three inspections were made of these mines and three certificates issued.

JOSEPH MILLER, Supt.

EDWARD BREWER, Mine Boss.

LONGDALE IRON CO.

No. 246. *Cliff Top Mine*.—This is a drift mine located on Glade Creek nine miles north from Sewell, on the Longdale Iron Company's private railroad. The Sewell seam is operated and varies in thickness at this point from 2 feet 10 inches to 3 feet 4 inches. Developments are conducted on the double entry system, and ventilation is produced by natural means at present, but arrangements are in progress to install a fan, which is badly needed. The product is hauled by the tail-rope system, and coal is mined by pick and mining machines. The price paid for pick mining is 60 cents per long ton, and machine operators are paid one dollar per room for mining rooms 30 feet wide by 5 feet deep; machine helpers receive 66 2-3 cents for the aforesaid work also, shooters and loaders being usually paid by the day according to their actual value.

The latest inspection of this mine was made on the 18th day of March, at which time the ventilation was found in a very moderate condition. In all sections of what is known as the New Mine the condition of haulways in regard to roofing, etc., was satisfactory, drainage in some sections fairly good and in others only moderate. The Mining Laws as a general rule are apparently properly observed in every respect, and every effort is exercised by the officials to induce their workmen to comply with the requirements of this law. The usual number of men employed is 200 or more. During the year two inspections were made of this mine and one certificate issued to the company.

WM. MCGUFFIN, Supt.

W. L. HERNDON, Mine Boss.

CUNARD COAL CO.

No. 247. *Cunard Mine*.—This is a drift mine located on the south side of New River immediately opposite the town of Sewell. The Sewell seam is operated, which averages in thickness at this point about 4 feet. Developments are conducted on the entry and air way plan. Ventilation is

natural and, with some exceptions, is fairly good. The main straight entry is driven clear through the mountain and the back opening is considerably below the front opening. The coal is all hauled by mules and produced by pick miners, who receive 55 to 60 cents per long ton, all other workmen being paid by the day.

The latest inspection made of this mine during the year was on the 18th day of April, at which time the ventilation and all other arrangements were found in a satisfactory condition, and apparently safe in every respect. About 60 men are usually employed in all departments.

Two inspections were made of this mine during the year and one certificate issued to the company.

JOHN LAING, Supt.

JOHN PERFATER, Mine Boss.

FIRE CREEK COAL & COKE CO.

No. 248. *Fire Creek Mine*.—This is a drift mine located on New River on the main line of the C. & O. Ry. The seam operated is known as the Fire Creek, and has an average in thickness from 3 feet to 3 feet 4 inches. The seam is soft coal like all other New River coal, is an excellent coking product and is found, as a general rule, about 300 feet below the Sewell seam. The mine is one of the oldest on New River, and the product is hauled by tail-rope haulage inside the mine and small steam engine around the mountain side to the drum house. The developments in solid ground are conducted principally on the double entry system. At present, however, the most of the work consists of robbing pillars. The ventilation when requisite, is produced by a 16-foot exhaust fan. The main opening is a hole clear through the mountain to what is known as Buffalo Creek; the difference of level between the two points is something over 150 feet. The work is all pick mining, and miners are paid 55 and 65 cents per long ton, according to thickness of seam encountered.

The latest inspection made of this mine during the year was on the 17th day of February, at which time all arrangements, including ventilation, conditions of haulways, airways, &c., together with drainage and all machinery and mechanical appliances in use, were found in a satisfactory condition and apparently safe in every respect. The mining law is well carried out in every respect, and the management as far as possible enforce their workmen to comply with same. The usual number of men employed is 125 or 150. Two inspections were made of the mine during the year and two certificates issued to the company.

G. H. CAPERTON, Supt.

ZEB ARRINGTON, Mine Boss.

ECHO COAL & COKE CO.

No. 249. *Echo Mine*.—This is a drift mine located on New River and on the main line of the C. & O. Ry. The Fire Creek or Quinnimont seam is operated, which varies in thickness at this point from 4 to 5 feet. The developments are conducted principally on the entry and air-way systems. The ventilation is produced by a 14-foot exhaust fan, and coal is all mined by pick miners, who receive 55 cents per long ton for mining. The product is hauled by an endless rope haulage operated by steam power.

The latest inspection during the year was made on the 2nd day of

April, at which time the ventilation was found very moderate in some sections, caused principally by the air-ways being partly on a squeeze in those particular sections. The roofing conditions on all haulways and working places, together with drainage and other arrangements, was found very satisfactory. All requirements of the Mining Law with reference to oil, stretchers, headlights on moving trains, &c., were apparently regularly observed and enforced by the officials. About 75 or 85 men and boys are usually employed at this operation. Two inspections were made of the mine during the year and one certificate issued to the company.

JOSEPH BEURY, Supt.

GEORGE M. DANIELS, Mine Boss.

GORDON COAL & COKE CO.

No. 250. *Central Mine*.—This is a drift mine located on New River and on the main line of the C. & O. Ry. The Fire Creek seam is operated, which averages in thickness from 2 feet 10 inches to 3 feet 4 inches. The developments are on the entry airway system, and coal is all pick mined, the prices paid for same being 55 and 60 cents per long ton. The coal is hauled by tail-rope system of haulage and the ventilation produced by a 10-foot exhaust fan.

The latest inspection made of this mine during the year was on the 5th day of March, at which time the ventilation and all other arrangements were found in a fairly satisfactory condition and apparently safe in every respect. The mining law requirements are complied with in full. This was the property of the Central Coal & Coke Company until Jan. 1, 1903. Two inspections were made of this mine during the year and one certificate issued to the company.

J. R. SEAL, Supt.

JOHN SHEARER, Mine Boss.

BROOKLYN COAL & COKE CO.

No. 251. *Brooklyn Mine*.—This mine is located on the south side of New River on the C. & O. Ry. The operations are in the Sewell seam, which varies in thickness at this point from 4 feet to 4 feet 8 inches. Developments are principally conducted on the double entry system. The greater portion is mined by compressed air punching machines, 43 cents per long ton being paid for mining, shooting and loading the product. The pick miners are paid 55 cents per long ton, and the coal is hauled by mules.

The latest inspection made of this mine during the year was on the 8th day of April, at which time the ventilation, which is produced by a 10-foot disc exhaust fan, was found good all over the mine. Roofing and other conditions on all haulways were apparently safe and all mechanical appliances and machinery being substantial. The drainage, however, was only moderately good on some entries.

The Mining Law in regard to the use of proper oil, and other requirements, are apparently observed in a proper manner and regularly enforced. From 75 to 100 men are usually employed at this mine. During the year three inspections were made of this mine and two certificates issued to the company.

JOHN LAING, Supt.

JAMES LAING, Mine Boss.

RED ASH COAL CO.

No. 252. *Red Ash Mine*.—This is a drift mine located on the south side of New River on the south side branch of the C. & O. Ry. The operations are in the Fire Creek seam, which varies at this point from 4 to 5 feet in thickness. Fire damp in more or less quantities is generated in this mine. Developments are conducted on the double and tripple entry system. Ventilation arrangements are of the most substantial and up to date character. Rock stoppings and over casts are being built on all main entries laid in mortar and cement. The ventilation currents are produced by an 11-foot exhaust Capell fan and are split at suitable points in order to meet any unexpected difficulty which may arise locally.

The coal is partly mined by pick miners and partly by compressed air punching machines. The pick miners receive from 50 to 55 cents per long ton, and the machine miners 40 to 45 cents per ton, run-of-mine for cutting, loading and shooting. The product is hauled by two electric motors.

The latest inspection of this mine made during the year was on the 9th day of June, at which time all arrangements, including ventilation, condition of roof and other arrangements on haulways, drainage in general, strength and condition of all mechanical requirements and machinery in use, etc., were found in a very satisfactory condition. All mining laws were apparently observed and enforced. The usual number of men employed range from 100 to 150. Four inspections were made of the mine during the year and four certificates issued to the company.

JOHN LAING, Supt.

JOHN LONG, Mine Boss.

JAMES McALISTER, Fire Boss.

RUSH RUN COAL & COKE CO.

No. 253. *Rush Run Mine*.—This is a drift mine located on the south side of New River about 2 miles west from Thurmond, and immediately adjoining the Red Ash mine on the east side. The operations are in the same seam as the Red Ash, viz.; the Fire Creek, and are found in about the same condition. The developments are conducted on the same principle. Fire damp is also generated in small quantities in almost all of the advancing entries, the ventilating arrangements being the same, practically speaking, as those at Red Ash. The coal is partly mined by pick and partly by mining machines, the compressed air punching machines being used. The pick miners are paid 50 cents and the machine contract work 40 cents per long ton, all coal in the New River District being paid for on the run-of-mine basis.

The latest inspection of the mine was made during the year on the 8th day of June, at which time every arrangement was found to be in excellent condition, and the mine in general, from all appearances, safe in every respect. All mining laws are apparently observed in the proper manner and regularly enforced. The usual number of workmen employed is from 125 to 150. There were five inspections made of this mine during the year and one certificate issued to the company.

JOHN LAING, Supt.

THOS. SUTTON, Mine Boss.

THOS. BANNISTER, Fire Boss.

THURMOND COAL CO.

Nos. 254 & 255. *Erskine No. 2 & Thurmond No. 1.*—These are drift mines located on the south side of New River about 1 mile west of Thurmond. The No. 1 operations are in the Sewell seam which ranges in thickness from 4 feet 4 inches to 4 feet 8 inches. The No. 2 operations are in the Fire Creek seam, which has recently been opened up and has as yet proven irregular in thickness, ranging from 3 to 6 feet. Developments in both mines are on the same lease and are conducted principally on the double entry system. The ventilation in No. 1 is produced, when necessary, by fan power. Occasionally, however, this is dispensed with, the entries being driven entirely through the mountain and the difference of level creating a very good ventilation when conditions are favorable. The coal is mined in both mines by pick miners who are paid 55 cents per long ton, run-of-mine. The No. 1 product is hauled by electric motors and the No. 2 by mules.

The latest inspection of these mines made during the year was on the 5th day of March, at which time the ventilation in No. 1 was satisfactory. In the No. 2, however, the ventilation was very moderate, no furnace or other arrangements being installed. All other arrangements, including conditions of safety on all haulways in both mines, drainage, strength and conditions of all machinery and other mechanical appliances in use, were found in proper form and apparently safe in every respect. The requirements of the Mining Law in general are apparently observed and regularly enforced. The usual number of workmen employed range from 125 to 150. Two inspections were made of each of these mines during the year and one certificate issued for same.

G. H. CAPERTON, Supt.

THOS. BOYD, Mine Boss.

BEURY COAL & COKE CO.

No. 256. *Stone Cliff Mine.*—This is a drift mine located on New River and on the main line of the C. & O. Ry., about 2 miles east of Thurmond. The seam worked is the Fire Creek or Quinnimont, and ranges in thickness from 2 feet 10 inches to 4 feet. For sometime past the operation has only been worked on a small scale, all previous developments having been exhausted and abandoned. New openings have been made in coal of a very irregular character, which heretofore has never been tested to any extent on account of its irregular and faulty appearance. The developments are being conducted at present in any manner which seems to be of the most advantage, and the ventilation produced is by a small furnace.

The latest inspection of this operation was made on the 18th day of February, at which time, considering the number of workmen employed, the conditions were satisfactory. About 35 workmen are employed at present and the prices paid for mining are 55 to 65 cents per long ton run-of-mine. During the year two inspections were made of the mine and one certificate issued to the company.

C. C. BEURY, Supt.

PAT McQUADE, Mine Boss.

BIG BEND COAL CO.

No. 257. *Big Bend Mine.*—This is a drift mine located on the main line

of the C. & O. Ry., one mile west of Thurmond. The operations are in the Fire Creek seam, which varies in thickness from 2 1-2 feet to 4 feet. The principal portion of all work done in this mine for some time has consisted of robbing pillars. The main straight entry, and all advancing entries, have run into low and unprofitable coal. The prices paid for mining are 55 and 60 cents per ton.

My latest inspection of this mine during the year was made on the 18th day of May. On that date the ventilation, which is natural, was only moderate, the conditions of the haulways apparently safe, drainage moderate and machinery in good repair. The mining laws are regularly observed and enforced. About 35 or 40 workmen are usually employed at this mine. During the year two inspections were made of this mine and one certificate issued to the company.

T. C. BEURY, Supt.

WM. DEMPSY, Mine Boss.

BEECHWOOD COAL & COKE CO.

Nos. 258 & 259. *Beechwood & Keystone Mines.*—These are drift mines located about 3 miles east of Thurmond on New River on the main line of the C. & O. Ry. Both operations are in the Fire Creek seam, which varies in thickness from 4 to 5 feet. The Beechwood mine has only been in operation during the year, and developments are conducted on the double and single entry system combined. The ventilation is produced by a 16-foot exhaust fan, and coal is mined by pick miners who are paid 55 cents per long ton run-of-mine. The product is hauled by tail-rope haulage.

The latest inspection of these mines made during the year was on the 28th day of January, at which time the fan was out of repair and standing, which caused the ventilation to be very moderate and in an undesirable condition. The haulways, drainage, machinery, &c., used was found to be satisfactory. Two inspections were made of the mine during the year and one certificate issued for each.

C. C. BEURY, Supt.

R. B. HANNA, Mine Boss.

ALASKA COAL & COKE CO.

No. 260. *Alaska Mine.*—This is a drift mine located on New River on the main line of the C. & O. Ry., about 4 miles east of Thurmond. The seam operated is the Fire Creek, and developments are conducted on the single and double entry systems combined. The seam at this point is very irregular and much intersected with slate rolls ranging in thickness from 2 feet to 4 feet 6 inches. The work is all done by pick and the miners are paid from 55 to 60 cents per ton. The hauling is done by the tail-rope system, and ventilation is produced by an 8 foot disc fan. Of late, however, the natural ventilation has been resorted to for a short period on account of the airways being blocked by a large quantity of water. This defect will be remedied in a short time. The latest inspection made of this mine during the year was on the 29th day of January, at which time the ventilation was very moderate and the number of miners small. All other conditions were found satisfactory and apparently safe in every respect. From 40 to 45 workmen are usually employed at this operation.

Two inspections were made during the year of this plant and one certificate issued to the company.

GEORGE LAWTON, Supt.

H. C. PETERS, Mine Boss.

NEW RIVER COLLIERY CO.

No. 261. *Slater Mine*.—This is a drift mine located on New River on the main line of the C. & O. Ry., about 6 miles east of Thurmond. The Fire Creek seam is operated, which at this point averages in thickness from 2 feet 10 inches to 3 feet 2 inches. This operation for several years has only been worked on a small scale, the condition existing being such that miners cannot make good wages and the company cannot afford to pay higher rates, consequently the number of men employed for sometime has not exceeded 20 or 25. The latest visit to this mine during the year was made on the 28th day of January, at which time all conditions, including ventilation, safety of roof, drainage, etc., were found satisfactory. Two inspections were made of this mine during the year. This was formerly the Thayer Coal Co.

J. H. BOYD, Supt.

RICH SEYMOUR, Mine Boss.

EPHRAIM CREEK COAL CO.

Nos. 262 & 263. *Buffalo Mines Nos. 1 & 2*.—These are drift mines located on New River on the main line of the C. & O. Ry., about 6 1-2 miles east of Thurmond. The Fire Creek seam is operated, which at this point ranges in thickness from 3 to 4 feet. The developments are all conducted on the double entry system, and ventilation is produced by fan and furnace power. The coal is mined by pick miners and electric mining machines. Pick miners are paid 55 cents per ton and machine operators are paid by the day. Hauling is done by electric motors. My latest inspection of these mines during the year was on the 25th day of May, at which time the ventilation, condition of all roadways, drainage, all machinery and mechanical appliances in use, were found substantial and in excellent repair, satisfactory in every respect and apparently safe in all details. All Mining Laws in regard to use of proper oil, stretchers, etc., are apparently observed. The number of workmen usually employed is about 125 to 150. Two inspections were made of these mines during the year and two certificates issued of each.

P. J. RILEY, Supt.

PETER McQUADE, Mine Boss.

HARVEY COAL & COKE CO.

Nos. 264 & 265. *Harvey Mines Nos. 1 & 2*.—These are drift mines located on Big Loup Creek and on the Big Loup Creek branch of the C. & O. Ry. The Sewell seam is worked in both mines and varies in thickness from 4 to 5 feet. The developments are all conducted on the double entry system, and coal is mined by pick miners who are paid 45 cents per long ton. The product is hauled by two tail-rope haulages inside of the mine and by a small steam locomotive from mine to point of shipment. The ventilation is produced by two 10-foot exhaust fans. The latest inspection made of these mines during the year was on the 17th day of June, at which time the ventilation in both mines was found fairly good. The roof conditions on all haulways were apparently safe and up to the requirements

of the mining law. All machinery and mechanical requirements in use were substantial, in good repair and apparently safe in every detail. The mining law in regard to the use of proper oils and other requirements set forth, are apparently regularly observed and enforced. Usually more than 200 workmen are employed at these mines. During the year there were two inspections made of each of these mines and two certificates issued to the company of each.

F. E. WALKER, Supt.

J. A. McCALLISTER, Mine Boss.

PRUDENCE COAL CO.

No. 266. *Prudence Mine*.—This is a drift mine located on Big Loup Creek and on the Big Loup Creek branch of the C. & O. Ry. The operations are in the Sewell seam, which varies in thickness from 4 to 5 feet. The developments are conducted on the double entry system and the ventilation is produced by three small furnaces. Coal at present is all mined by pick miners at 45 cents per gross ton, and hauling is done by two 15-ton electric motors.

The latest inspection made of this mine was on the 17th day of June, when ventilation, condition of haulways, drainage, machinery and mechanical appliances in use, were found in a satisfactory condition and apparently good repair. The mining laws in regard to the use of proper oil and other requirements, are apparently regularly observed and every effort is made to induce the workmen to comply therewith. The number of workmen usually employed at this mine range from 125 to 150 men and boys. Four inspections were made of the mine during the year and two certificates issued to the company.

H. A. MOSLEY, Supt.

W. S. WILLIAMSON, Mine Boss.

STAR COAL & COKE CO.

No. 267. *Star Mine*.—This is a drift mine located on Big Loup Creek, a tributary of New River, and on the C. & O. Ry. branch line. The Sewell seam is operated and averages in thickness from 4 1-2 to 5 feet. Developments are conducted on the double entry system and the ventilation is produced by a 10-foot exhaust disc fan. This mine generates fire damp in small quantities, principally on the main straight heading and those cross entries closely behind the face of main straight. The coal is mined partly by pick miners, who are paid 45 cents per gross ton, and partly by mining machines, the runner and helper of which receive 8 cents per ton for cutting, and for shooting and loading 32 cents per gross ton, the product being hauled by a tail-rope haulage.

The latest inspection made of this mine during the year was on the 18th day of June, at which time the ventilation in some sections was not satisfactory. This fact had previously on the 22d of May, 1903, been communicated to Geo. Jones, the manager, by letter, and a request that a more powerful fan be installed at an early date was made. The roofing condition on all entries, drainage, machinery, all mechanical appliances in use, excepting fan, were all found satisfactory and apparently safe in every respect, and all the mining laws were seemingly being complied with and diligently enforced. The usual number of workmen employed at this mine range from 125 to 150. There were four inspections

made of this mine during the year and four certificates issued to the company.

GEORGE JONES, Supt.

DAVID EVENDALE, Mine Boss.

COLLINS COLLIERY CO.

Nos. 268 & 269. *Collins Mines Nos. 1 & 2.*—These are two slope mines located on Big Loup Creek, a tributary of New River, about 7 miles from Thurmond on the Loup Creek branch line of the C. & O. Ry. The Sewell seam is operated and varies in thickness from 4 to 6 feet, both mines being developed on the double entry systems and ventilated by two 16-foot exhaust fans. The coal is all mined by pick miners who receive 45 cents per gross ton for mining. The product is hauled by two tail-rope haulages.

The latest inspection of these mines was made on the 25th day of June, at which time quite a number of improvements were in progress both outside and inside the mines, among these being the important one of ventilation inside the mines, which is now in a very satisfactory condition. The roofing of these mines has to be, as a general rule, well timbered on all haulways, which is being overhauled at all points and re-timbered where necessary, and where practical all draw or loose slate is being taken down. The drainage is also being improved where requisite, all machinery and mechanical appliances of every description were found substantial and in good repair, apparently safe in every detail. The mining laws in regard to the use of proper oil, headlights on moving trains, stretchers, blankets and other requirements, are apparently properly observed and regularly enforced as far as practically possible by the company. The usual number of men employed is 300 to 350.

During the year there were four inspections made of these mines and three certificates issued of each.

GEORGE WOLF, Supt.

ADAM LINDLEY, Mine Boss.

WHIPPLE COLLIERY CO.

No. 270. *Whipple Shaft.*—This is a shaft mine located on White Oak branch, a tributary of Big Loup Creek on the Loup Creek branch of the C. & O. Ry., about 3 miles from Glen Jean. The seam operated is the Sewell, which ranges in thickness from 4 to 6 feet and is reached by a shaft 440 feet in depth. Developments are conducted on the double entry system and ventilation produced by a 16-foot Capell fan installed to force or exhaust. The coal is mined by pick miners and punching machines operated by compressed air, price paid for pick mining 45 cents per gross ton and for machine operators day wages.

The latest inspection made of this mine during the year was on the 20th day of May, at which time all ventilating arrangements were found in good condition, the roofing and all other conditions on haulways being apparently safe in every respect. The permanent drainage system has not yet been perfected but was in fairly good shape. All machinery and mechanical appliances, including all shaft equipment, &c., were new and up to date. The mining laws are closely observed and regularly enforced.

At present 75 to 100 men are employed at this mine. Three inspections were made of the mine during the year.

JAMES P. DANIELS, Supt.

ROBERT WATSON, Mine Boss.

ANTHONY CHAMBERS, Fire Boss.

SUN COAL & COKE CO.

Nos. 271 & 272. *Sun Mines Nos. 1 & 2.*—Sun mine No. 1 is a slope and mine No. 2 a shaft, both located on the Loup Creek branch of the C. & O. Ry., about 7 1-2 miles south from Thurmond. The Sewell seam is operated and ranges in thickness from 4 to 6 feet. Both these mines generate fire damp in some sections, principally in the advanced workings, developments being conducted on the double and tripple entry systems. Ventilation is produced by a 12-foot Capell fan operated at present to exhaust. The mining is principally done by pick miners, who are paid 45 cents per gross ton for mining, there being, however, a few punching machines in use occasionally for entry driving which are operated by compressed air. For machine work 45 cents is also paid when used in entries. The hauling is all done on main road by three electric motors.

The latest inspection made of these mines during the year was on the 19th day of May, at which time all arrangements, including condition of haulways, airways, drainage, strength and condition of all machinery and mechanical appliances in use in shaft, slope and elsewhere, were found in good order and satisfactory in every respect and safe in every detail. The mining laws are apparently observed in a proper manner and regularly enforced by the officials of this company. the usual number of men being employed ranging from 250 to 275 men and boys. There were four inspections made of each of these mines during the year and four certificates issued to the company of each.

JAS. LAING, Supt.

JOHN NELSON, Mine Boss.

JAMES MARTIN, Mine Boss.

JAS. McMILLEN, Fire Boss.

WM. ELLIS, Fire Boss.

McKELL COAL & COKE CO.

Nos. 273, 274 & 275. *Derryhale, Kilsyth & Oswald Mines.*—These are three drift mines located on Big Loup Creek on the C. & O. Ry., branch line. The Sewell seam is operated and in all the openings it averages in thickness about 5 feet. These mines are all developed on the double entry system, the Derryhale mine being located about 8 miles from Thurmond. The ventilation is produced by an 8-foot disc fan which is operated by a gasoline engine. The coal is all hauled by mule power to the tippie, there being no incline. The coal is mined by pick miners at the usual price of 45 cents per long ton. The latest inspection made during the year was on the 22d day of May, at which time all conditions existing were satisfactory.

The Kilsyth mine is about two miles further east, near the town of Mt. Hope, this mine being ventilated at present by furnace power, and the coal mined by pick miners, who are paid the same price per ton as at Derryhale. The product is hauled by electric power to the tippie, there being no incline plane. The latest inspection made of this mine during the year was on the 11th day of February, at which time all arrangements were found in good order and satisfactory in every detail.

The Oswald mine has not yet started to ship coal when the last inspection was made. At all these mines the mining laws were apparently regularly observed and every effort made to compel all workmen employed to comply therewith. The usual number of men employed by this company is 300 or more. During the year there were three inspections made of each of these mines and two certificates issued of each.

THOS. NICHOLS, Supt.

T. A. LEWIS, Mine Boss.

JOHN FENWICK, Mine Boss.

DUNNLOOP COAL & COKE CO.

Nos. 276 & 277. *Dunnloop Mines Nos. 1 & 2.*—These are drift mines located on Big Loup Creek, 8 miles from Thurmond, and on the Big Loup Creek branch of the C. & O. Ry. The Sewell seam is operated and averages in thickness from 4 feet to 5 1-2 feet. The seam is level with the tippie at both mines, No. 1 mine being all pillar work. The No. 2 is developed on the double entry system and ventilated by a 10-foot disc fan, which fan also partly ventilates the No. 1 mine, both mines being broken together. The coal is all mined by pick miners who are paid 45 cents per gross ton. The product is hauled in the No. 1 mine by mules and in the No. 2 by a tail-rope haulage system.

The latest inspection of these mines during the year was made on the 24th day of March, at which time the ventilation in the No. 2 was extremely moderate in some sections, several doors and stoppings needing repair. The haulways as a general rule were in fairly good condition and apparently safe. The drainage was good except on entry between No. 1 and No. 2 mines, where a large quantity of water was standing on the roadway. All machinery and mechanical appliances used were found to be substantial, in good repair and apparently safe in every detail. There are 200 men or more usually employed at these mines. During the year three inspections were made of these mines and two certificates issued of each.

JAMES McGUFFIN, Supt.

A. P. GIBSON, Mine Boss.

TURKEY KNOB COAL & COKE CO.

No. 278. *Turkey Knob Mine.*—This is a drift mine coming out level with the tippie, and is located on the Loup Creek branch of the C. & O. Ry., about 9 miles from Thurmond. The Sewell seam is operated and varies in thickness from 4 to 5 feet, the developments being conducted on the double entry system. Ventilation is natural, and coal is produced by pick miners who are paid 80 cents per car of something less than two tons capacity, the coal being hauled in main haulways by tail-rope system.

The latest inspection of this mine made during the year was on the 23d day of March, at which time the ventilation in many sections was found to be very moderate, although the doors and stoppings were in good repair. Arrangements are now being made for the installation of a fan, which will remedy the defect in ventilation. Roofing and other conditions on all haulways were in a satisfactory condition, but drainage arrangements were only moderate. All mechanical requirements in use were found substantial, in good repair and apparently safe in every

respect. The mining law in regard to the use of proper oil, keeping on hand the necessary stretchers and blankets for the removal of injured workmen, headlights on moving engines, &c., were apparently properly and regularly observed. The usual number of workmen employed is from 100 to 125. There were four inspections made of these mines during the year and two certificates issued of each to the company.

QUINTON MORTON, Supt.

PETER WOLF, Mine Boss.

MACDONALD COLLIERY CO.

No. 279. *Macdonald Mine*.—This is a drift mine which has no plane, with openings level with the railroad tippie and is located on the Big Loup Creek branch of the C. & O. Ry., 10 miles southeast from Thurmond. The Sewell seam is operated and varies in thickness from 4 to 6 feet, developments being conducted on the double entry system. The product is hauled on all main roads by an endless rope haulage, and mine is ventilated by a 10-foot disc fan. The coal is mined by machine and pick miners, the pick men being paid the usual price of 45 cents per long ton. Punching machines are operated by compressed air, the machine runners being usually paid by the day and those loading and shooting receiving from 33 to 37 cents per ton.

The latest inspection of this mine made during the year was on the 12th day of February, at which time the ventilation in some sections of this mine was fairly good, and in the main straight sections it was only moderate. This condition is caused partly by the fan being inadequate for a mine of this calibre. More heading designated will, however, in a few months hole to daylight which will shorten the distance the currents have to travel and improve the ventilation of the entire mine. The principal portion of all entries have to be heavily timbered and were found in good shape and apparently safe, drainage arrangements being fairly good also. The machinery and all mechanical appliances in use were substantial and in good repair as required by law. The mining law in regard to the use of proper oils, keeping on hands all requirements for the removal of injured workmen, &c., are apparently properly observed and regularly attended to. The number of workmen employed at this mine range from 150 to 175 men and boys. There were two inspections made of the mine during the year and two certificates issued to the company.

SAM DIXON, Supt.

R. V. MILLER, Mine Boss.

SUGAR CREEK COAL CO.

No. 280. *The Sugar Creek Mine*.—This is a slope mine located at the town of Mt. Hope on the Big Loup Creek branch of the C. & O. Ry., about 10 1-2 miles from Thurmond. The Sewell seam is operated and varies in thickness from 4 1-2 feet to 5 1-2 feet, the developments being conducted on the double entry system. The product is hauled by a tail-rope haulage over all main roads, and ventilation produced by a 10-foot disc fan exhaust. All coal is mined by pick miners who receive 45 cents per ton.

The latest inspection of this mine made during the year was made on the 21st day of May, at which time the ventilation and all ventilating

arrangements were satisfactory. The greatest portion of all the entries in this mine have to be carefully and securely timbered on account of the slate overhanging the seam, being of a soft and jointy character. The haulways were properly timbered, free from loose slate of a dangerous nature and apparently safe. The drainage is only moderate in several entries, in others where favorable conditions exist, it was found satisfactory.

All mining laws are apparently regularly observed and enforced by the management as far as they can practically do so. The number of workmen usually employed range from 100 to 125 men and boys. There were four inspections made of the mine during the year and two certificates issued to the company.

SAM DIXON, Supt.

FLOYD RAMSEY, Mine Boss.

PRICE HILL COLLIERY CO.

No. 280A. This operation having been delayed for sometime on account of controversy over railroad right of way, is now commencing to open up again.

MT. HOPE COAL CO.

No. 281. This operation is stopped at the present time on account of railroad arrangements, excepting a small amount sold occasionally for domestic use in the town of Mt. Hope. The company will now push their improvements, having gotten their difficulties arranged.

WHITE OAK FUEL CO.

Nos. 282 & 283. *White Oak Mines Nos. 1 & 2.*—These are shaft mines 440 feet deep, located on the White Oak branch of the C. & O. Ry., about 6 miles east of Fayetteville, the county-seat of Fayette county. The Sewell seam is operated which ranges in thickness from 4 to 6 feet, the developments being conducted on the double entry system. The ventilation in each mine is produced by a 10-foot Bullitt fan, so arranged as to force or exhaust. In the No. 1 shaft the principal portion of the coal is produced by pick miners, there being, however, one electric and two punching machines in operation. The pick miners are paid 45 cents and the machine runners who work by contract, 43 cents per long ton, the company furnishing the machines, which are operated by air. The machine men are paid by the day, and those loading the coal receive 25 cents per ton.

The latest inspection of these mines made during the year was on the 20th day of May, at which time all arrangements, including ventilation, condition of roof on haulways and airways, drainage, shaft machinery equipments and all other mechanical appliances in use, were found in a fairly satisfactory condition and apparently safe. The mining laws are all apparently regularly observed and properly enforced. These mines have recently been developed and have not yet gotten all the improvements perfected. There are usually employed about 250 men and boys.

FRED DIXON, Supt.

J. E. TIDLOW, Mine Boss, Mine No. 1.

T. A. LEWIS, Mine Boss, Mine No. 2.

FRED DIXON, Fire Boss, Mine No. 1.

GEORGE WHITFIELD, Fire Boss, Mine No. 2.

OAKWOOD SHAFT.

No. 283A. This shaft is only sinking, being down about 300 feet with about 50 men employed.

STUART COLLIERY CO.

Nos. 283B. & 283C. *Stuart Shafts Nos. 1 & 2.*—These are shafts now being sunk and are located on the White Oak branch of the C. & O. Ry., about 4 miles east from Fayetteville. Each shaft is now down about 250 feet, and when completed will be down 550 feet. The Sewell seam will be operated. The latest inspection of this operation was made on the 25th day of March, at which time all machinery and other arrangements in use were found in good order and apparently safe in every detail. Two inspections were made during the year of this work.

J. E. ROSSER, Supt.

QUINNIMONT COAL CO.

No. 284. *Big Q Mine.*—This is a drift mine located on the Laurel Creek branch of the C. & O. Ry., 4 miles from Quinnimont. The Quinnimont or Fire Creek seam is worked, which varies in thickness from 3 1-2 to 4 1-2 feet, the developments being conducted on the double entry system. The ventilation is principally natural and coal is mined by pick miners who are paid 55 cents per long ton. The product is hauled by the endless rope system.

The latest inspection of this mine during the year was made on the 8th day of May, at which time ventilation although natural, was found fairly good, there being several openings entirely through the mountain, which have elevations ranging from 50 to 100 feet above each other. The roof conditions on all haulways and working places were found safe at all points, the drainage being fairly good. All machinery and mechanical requirements in use were substantial, in good repair and apparently safe in every respect. The mining law in regard to keeping on hand the requirements for the removal of injured workmen, the use of suitable oils and other requirements, were apparently regularly and properly observed. The number of men usually employed varies from 125 to 150. During the year three inspections were made of this mine and three certificates issued to the company.

C. C. BEURY, Supt.

CHARLES CARMEN, Mine Boss.

GREENDALE COAL CO.

No. 284A. This operation is being developed close to the Big Q mine. As yet the improvements are not completed and no coal has been shipped. The operations will be in the Fire Creek seam, which at present averages 3 1-2 feet in thickness.

ROBINS COAL CO.

No. 285. *Robins Mine.*—This is a drift mine located on Laurel Creek, a tributary of New River on the Laurel Creek branch of the C. & O. Ry. The Fire Creek seam is operated, which at this point has heretofore been very irregular in thickness and very much intersected with slate rolls; at present, however, the outlook is somewhat encouraging. The system

of development has been of a somewhat mixed character, the existing conditions having largely governed the methods adopted. Ventilation at present is natural. The latest inspection made of this mine during the year was on the 9th day of May, at which time the ventilation, condition of haulways, etc., were found satisfactory, the drainage as a general rule being moderate. All machinery and mechanical requirements in use were substantial, in good repair and safe in every detail. The mining law is apparently complied with. The usual number of workmen employed are about 25, who receive for their work from 55 to 65 cents per gross ton. Two inspections were made of this mine during the year.

RICHARD HOWELLS, Supt. & Mine Boss.

LAUREL CREEK COAL CO.

No. 286. *Laurel Creek Mine.*—This is a drift mine located on Laurel Creek on the C. & O. R. R. The Fire Creek of Quinnimont seam is operated, which averages from about 3 1-2 to 4 feet in thickness. The developments are conducted on the double and single entry system combined. The ventilation is produced by a 10-foot centrifugal fan, the hauling on the main roads being done by an endless rope. All coal is mined by pick miners who are paid 55 cents per gross ton. The latest inspection made of this mine during the year was on the 8th day of May, at which time the ventilation in the main straight headings, where the entries are double, was fairly good. On the cross entries, however, where single, especially towards the head of each entry, the ventilation is always more or less bad and unsatisfactory. The roof, as a general rule, is good all over the mine, and drainage is fairly good on all haulways. All other requirements, including machinery of every description was in good repair. The mining law in regard to the use of proper oil, stretchers, blankets, head-lights, etc., were apparently regularly observed and properly enforced. About 75 men are usually employed at this mine. There were three inspections made of the mine during the year and two certificates issued to the company.

A. J. BROWN, Supt.

WM. WHITLOCK, Mine Boss.

GREENWOOD COAL CO.

Nos. 287 & 288. *Greenwood Mine.*—This is a drift mine located on Laurel Creek five miles from Quinnimont on the C. & O. Ry., branch line. The Fire Creek seam is operated, which averages in thickness from 3 1-2 to 4 1-2 feet, developments being conducted on the single and double entry systems. There are several openings at different points, and the ventilation is natural. All coal is mined by pick miners and the usual price paid is 55 cents per gross ton. The product is all hauled under ground by mules and on the tramroads on the outside by steam locomotives. The latest inspection was made of this mine during the year on the 7th day of May, at which time the ventilation in some of the openings was very good, but in others it was only moderate. The roof as a general rule is good and all haulways apparently safe. The drainage and all other arrangements, including machinery, ropes, etc., were found to be in good repair, substantial, and apparently up to the standard of the

mining laws and other legal requirements regularly observed and properly enforced. The number of men employed range from 150 to 200. Two inspections were made of this mine during the year.

WM. A. BROWN, Supt.

WM. CHICKMOOR, Mine Boss.

SYCAMORE COAL CO.

No. 288A. This is a drift mine close to the Greenwood mine and is being opened up in the same seam, being known as the Sycamore mine. As yet no coal has been shipped and no inspections made.

W. P. REND.

Nos. 289, 290, 291, 292 & 293. *Rend Mines Nos. 1, 2, 3, 4 & 5.*—These are drift mines located on Arbuckle Creek about two miles from Thurmond, on the South Side branch line of the C. & O. Ry. The No. 1 mine developments are in the Fire Creek seam, and the Nos. 2, 3, 4 & 5 in the Sewell seam. The Fire Creek seam averages in thickness from 4 to 5 feet, and the Sewell seam from 4 feet to 4 feet 8 inches. All the developments are conducted on the double entry system, and in each mine the ventilation is produced by a ten foot disc fan. The coal is mined by pick miners and electric mining machines, the pick miners being paid 45 cents per gross ton and 33 cents for machine coal when mined by contract, 25 cents being paid for shooting and loading. The machine runners when not under contract, are paid by the day. All the product is hauled from these mines by mules and then hauled to a point of shipment by steam and electric motors. The last inspection during the year of these mines was made on the 16th day of June, at which time all arrangements, including ventilation, condition of roof, etc., on all entries, drainage, all mechanical requirements in use etc., were found in a satisfactory condition and apparently safe in every respect. The mining laws in regard to the use of proper oil, keeping on hand all the necessary requirements for removing injured workmen, etc., were regularly observed and properly enforced. The number of workmen employed in these mines range from 500 to 750 men and boys. Two inspections were made of each of these mines during the year.

GEORGE MORAN, Supt.

JOSEPH SCHWITZER, Mine Boss.

WILLIAM PENMAN, Mine Boss.

JOHN SHEARER, Mine Boss.

GAMOCA COAL & COKE CO.

Nos. 294. *Gamoca Mine.*—This is a drift mine located on the East side Gauley river on the C. & O. Ry. branch line. The No. 2 Gas seam is operated, which at this point is about 4 feet in thickness and reached by a plane 1,200 feet in length. The mine has only been opened a short time, the developments being conducted on the double entry plan and ventilation produced by a small furnace. An inspection was made of this mine on the 15th day of April, at which time all requirements were found satisfactory, and apparently all requirements of the Mining Laws being properly observed and regularly enforced. All mining is done by pick miners who are paid 40 cents per short ton. At present there are about 60 miners and other employes at work.

MYRON C. CAMPBELL, Supt.

PRESTON MORAN, Mine Boss.

LENDALE COAL CO.

No. 295. This mine has been standing for sometime but will be opened up again in a short time.

DEITZ & FAYETTE COLLIERY COS.

Nos. 296 & 297. These mines are now being opened up and planes to each being built. The No. 2 Gas coal seam is being developed. These two mines are both located on Gauley River close to Gamoca mines about 2 and 5 miles distant from Gauley Junction of the C. & O. Ry., and K. & M. R. R. William Theodore Dietz is General Manager at present of both operations.

RALEIGH COUNTY.

ROYAL COAL & COKE CO.

No. 298. *Royal Mine.*—This mine is located on the south side of New River and on the Piney Creek branch of the C. & O. Ry., immediately opposite the town of Prince. The operations are in the Fire Creek seam which ranges in thickness from 2 feet 6 inches to 4 feet 6 inches. The developments are conducted on the single and double entry system combined, and ventilation is natural. All coal is mined by pick miners at the usual New River rate of 55 cents per gross ton. The product is hauled by tail-rope haulage.

The last inspection made of this mine during the year was on the 9th day of May, at which time the ventilation in some places was fairly good and in other sections very moderate. Such conditions will always exist where natural ventilation is depended upon, especially where single entry is driven. The roof of this mine is generally good. Conditions existing in all haulways and other places were found satisfactory. The drainage, together with all the machinery and other mechanical appliances in use, proved to be in a satisfactory condition and apparently safe in every detail. The requirements of the mining law in regard to using proper oil, keeping on hand stretchers, blankets, etc., were apparently properly observed and regularly enforced. The number of workmen usually employed at this mine range from 75 to 100 men and boys. During the year there were three inspections made of this mine and three certificates issued to the company.

JOHN HOWALD, Supt.

CHAS. STOVER, Mine Boss.

RALEIGH COAL & COKE CO.

Nos. 299, 300, 301 & 302. *Raleigh Mines Nos. 1, 2, 3 & 4.*—These are drift mines located on Piney Creek, a tributary of New River, and on the Piney Creek branch of the C. & O. Ry., 15 miles from Prince. The Fire Creek seam is operated which ranges in thickness at this point from 4 feet to 4 feet 6 inches. The developments are all conducted on the double entry system. Ventilation in each mine is produced by a five foot high speed disc fan operated by electric power. The coal is mined by both pick miners and electric mining machines, the pick miners receiving 67 cents per car of about 1 1-3 tons, run-of-mine. The machines are usually run by contract, those operating them being paid 50 cents per car for cutting, shooting and loading the coal. The product is hauled on all

main roads in each mine by the Morgan electric motors. The last inspection made of these mines during the year was on the 26th day of May, at which time all arrangements, including ventilation, condition of roof on all haulways and working places, drainage, condition of machinery and mechanical appliances in use, were found substantial, in good condition and apparently safe in every respect. All the requirements of the mining law are apparently observed and regularly enforced. The usual number of workmen employed range from 200 to 250 men and boys. There were four inspections made of each of these mines during the year and three certificates issued of each to the company.

JAMES A. STIRRAT, Supt.

RAYMOND HURD, *Mine Boss.*

REESE WATKINS, *Mine Boss.*

WRIGHT COAL & COKE CO.

Nos. 303 & 304. *Wright Mines Nos. 1 & 2.*—These are drift mines located on Piney Creek on the Piney Creek branch of the C. & O. Ry., 3 miles from the town of Prince. The Fire Creek seam is operated, which varies at this point from 3 feet to 4 feet 6 inches. The developments are conducted as yet on the entry and airway plan, the ventilation being natural. Arrangements are now in progress, however, to install a fan and an electric plant for haulage and other purposes. The coal is all mined by pick miners, the usual rate being paid of 55 cents per gross ton. The No. 2 mine has as yet not shipped any coal. The last inspection of these mines during the year was made on the 28th day of May, at which time the ventilation as a general rule was only moderate. The haulways, drainage and condition of all machinery and mechanical appliances were found in a satisfactory condition and apparently safe in every respect. The mining laws as a general rule are apparently observed and regularly enforced. The number of workmen usually employed range from 150 men and boys, which number will be increased when the No. 2 is put in full operation. During the year three inspections were made of these mines.

GASTON CAPERTON, Supt.

W. M. HURD, *Mine Boss.*

LANARK FUEL CO.

Nos. 305 & 306. *Lanark Mines Nos. 1 & 2.*—These are drift mines located on Piney Creek, on the Piney Creek branch of the C. & O. Ry. about 5 miles from Prince. The No. 1 operation is in the Fire Creek seam and the No. 2 in the Sewell seam. The Fire Creek seam ranges in thickness from 2 feet 10 inches to 4 feet 8 inches. The developments are principally on the double entry system in both mines. All the coal mined is by pick miners and the usual New River prices paid. All the product is as yet hauled by mules. Ventilation in No. 2 mine is produced by a small furnace. The last inspection of these mines was made on the 29th day of May, at which time all arrangements, including ventilation, condition of roof on all haulways, together with drainage and condition of all machinery, etc., were found to be satisfactory, and apparently safe in every respect. The mining laws are regularly observed. There are usually employed about 50 to 75 workmen, which number will be steadily increased as developments become enlarged. During the year three inspections were made of each of these mines.

JOHN LAING, Supt.

DAVID LAING, *Mine Boss.*

PINEY COLLIERY.

Nos. 307, 308 & 308A. *Piney Mines Nos. 1, 2 & 3.*—These are drift mines located on Piney Creek on the C. & O. Ry. branch line, about 7 miles from Prince. The Fire Creek and Sewell seams are being operated, the Fire Creek seam at this point being very irregular in thickness, averaging from 30 inches to 4 feet 6 inches. The Sewell seam averages about 4 1-2 feet. The product is hauled by electric power and developments are being conducted on the double entry system. The ventilation at present is natural. These mines have only been opened up a short time, and coal is all mined by pick miners who are paid in the Fire Creek seam from 50 to 60 cents per long ton. The last inspection of these mines was made on the 29th day of May, at which time all arrangements were found satisfactory and apparently safe in every respect. About 75 to 100 men and boys are employed at these mines at present. The mining laws in general are apparently properly and regularly observed and enforced. There were three inspections made of each of these mines during the year.

MIKE MURPHY, Supt. P. C. FULTZ, Mine Boss.
MULLARD HURD, Mine Boss.

STONEWALL COAL CO.

Nos. 309, 310 & 310A. *Stonewall Mines Nos. 1, 2 & 3.*—These are drift mines located on Piney Creek, on the Piney Creek branch of the C. & O. Ry. The operations are in the Fire Creek and Sewell seams, which vary in thickness from 2 1-2 to 5 feet. The developments are conducted principally on the double entry system, and the ventilation produced by furnaces. The coal is all mined by pick miners who are paid the usual New River rate of 55 cents per long ton. The last inspection made of these mines during the year was on the 27th day of May, at which time the ventilation, condition of all haulways, drainage, together with all machinery and mechanical appliances in use, were found in good order and apparently safe in every respect. The mining laws are apparently regularly observed in every detail and properly enforced. At present about 80 workmen are employed. During the year three inspections were made of these mines.

J. W. STRAUGHAN, Supt. BEN GUY, Mine Boss.

BECKLEY COAL CO.

No. 310B. This is known and organized as the Beckley Coal Company, but as yet has not commenced operations. This colliery will be located near the town of Beckley, the county seat of Raleigh county.

NICHOLAS COUNTY.

BELL CREEK COAL CO.

No. 311. *Belva Mine.*—This is a drift mine located on Gauley river, on the Gauley River branch of the C. & O. Ry., near the town of Belva. The operations are in the Coalburg Splint coal seam, which averages in thickness from 4 to 4 1-2 feet, the developments being principally conducted on the double entry system. Ventilation is produced by three small furnaces. The coal is mined by pick miners and electric mining machines, the pick miners receiving 40 cents per short ton run-of-mine and

the machine men being paid by the day. The product is hauled on the narrow guage to the tipple by a small steam locomotive. The latest inspection was made of this mine during the year on the 15th day of April, at which time all conditions existing were satisfactory and all arrangements apparently safe in every detail. The mining law in general was being regularly observed and enforced. About 75 workmen usually are employed. Three inspections were made of this mine during the year.

P. E. GALLAGHER, Supt.

L. F. HESS, Mine Boss.

ROCK CAMP FORK COAL CO.

No. 312. *Rock Camp Mine*.—This is a drift mine located on Twenty Mile Creek, a tributary of Gauley river, and on the branch of the C. & O. Ry. about 5 miles from Belva. The seam operated is the No. 2 Gas coal, which ranges from 3 1-2 to 4 feet in thickness. The developments, which are only on a small scale, are conducted on the entry and airway plan, and ventilation is produced by a furnace. The coal is all mined by pick miners who are paid 45 to 50 cents per stork ton, run-of-mine. The coal is hauled by mules. The last inspection of this mine this year was made on the 16th day of April, at which time all arrangements were satisfactory. About 25 men are employed at this mine. There were two inspections made of this mine during the year.

R. C. RIPPETOE, Supt.

W. H. STRAUGHAN, Mine Boss.

Nos. 313, 314, 315, 316 & 316A. These mines, viz., the Cambria, Mt. Carmel, National, Arminius and Scott, are all developed in the Coalburg Splint Coal seam on Bell Creek, a tributary of Gauley river in Nicholas County. The railroad is graded to these mines and iron is now being laid, and when completed this plant will be ready to ship coal. The seam at this point ranges in thickness from 4 feet to 4 feet 8 inches, and are reached by planes ranging in length from 100 to 800 feet.

FOURTH DISTRICT.

OFFICE OF THE FOURTH DISTRICT MINE INSPECTOR,

KEYSTONE, W. VA., June 30, 1903.

HON. JAMES W. PAUL,

Chief Mine Inspector,
Charleston, W. Va.

SIR:—I hereby respectfully submit to you my annual report as Inspector of Mines of the Fourth District of West Virginia for the year ending June 30th, 1903.

During the year past there have been a great many improvements made in and around the mines of this District, and the general condition of all the collieries is very satisfactory, and all that can be desired.

In Mingo County twelve new mines have been opened: Merrimac, Glen Alum No. 2, War Eagle, Hatfield, Jackson, Marvin, Mate Creek, Papoose, Margaret, Star, Cedar and Volcome. The railroad company is building a railroad from Nangatuck down Big Sandy which will open up a large field.

In McDowell County there are fourteen new mines: six mines of the United States C. & C. Co., Hensley No. 2, Mohawk, Welch Nos. 1 & 2, Zenith, McClaren, Page and U. G. Shaft.

I regret to state that during the year there have been over one hundred and twenty-three accidents in this District, fifty-six fatal, fifty-five non-fatal and twelve serious. It matters not how strict a boss is with his men, tells them and shows them how to keep their slate down, keep the place propped and in a safe condition, they promise to do so and as soon as the boss' back is turned they risk their lives under slate and loose coal.

There are a large number of men in this District who are inexperienced miners and it is hard to prevent accidents from occurring.

On the morning of Sept. 15th, 1902, an explosion occurred at the Algoma Mine at about half past 8 o'clock in which fifteen men and one boy lost their lives. I received word of the explosion at half past 8 o'clock and got to the mine about 9 o'clock. I at once made an examination and found that the brattices had been damaged for three quarters of a mile, main entry full of damp. This was caused by the main entry being the return from the first cross entry where the explosion occurred. I then went to the outside and organized the men in shifts. We took boards and brattice cloth and repaired the stoppings to the first cross entry. In some places we were troubled with water and the electric wires were down, pumps stopped and in many places we waded through water 4 1-2 feet deep. We found the first body at seven o'clock that evening and the remaining bodies were taken out by four o'clock the next morning.

This explosion should not have occurred. The fire boss was sick and the contractors agreed to look after the gas that morning. They did not get to their places until the boy started the electric fan which drove the

gas down the right entry. Some of the men were on the entry, some in the rooms and the driver started up and set the gas off at the upper break-through.

I had visited this mine in July previous to the explosion and found no gas on those entries. This explosion was caused by neglect. The officials of the mine should have seen that the law had been carried out. There was no report at the drift mouth or at any other safe station. I have forwarded to you tracings of the mine, location of bodies found, testimony of witnesses and verdict of the coroner's jury.

I desire to state that I have made two hundred and eighty-three official visits and forty non-official. My relations with all persons while on my official duty have been pleasant. I have received from the officials and miners of the various mines kind and considerate treatment for which I desire to return my thanks, I also wish to thank you for the many favors received at your hands during the past year.

Yours very truly,

S. S. COOPER,

Mine Inspector, 4th Dist., W. Va.

GENERAL SUMMARY OF THE FOURTH DISTRICT FOR THE
YEAR ENDING JUNE 30, 1903.

COUNTY.	EMPLOYES.											PRODUCTION.			
	No. of Mine Openings.	Total No. of Inspections Made.	No. of Written Reports Made.	Inside.					Outside.			No. of Men Killed.	Coal (Tons of 2,240 lbs.)	Coke (Tons of 2,000 lbs.)	
				Pick Miners.	Machine Miners.	Mach. Runners & Helpers.	Laborers.	Total.	Laborers.	Coke Workers.	Total.				
McDowell...	67	...	165	3,494	156	50	1,639	5,339	888	1892	2,780	8,119	48	5,249,913	1,016,988
Mercer.....	17	...	39	841	40	8	328	1,217	205	313	518	1,735	4	1,274,003	167,567
Mingo.....	27	...	52	615	229	75	253	1,172	198	...	198	1,370	...	864,464	...
Logan.....	42	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals...	113	283	256	4,950	425	133	2,220	7,728	1,291	2,205	3,496	11,224	59	7,388,380	1,184,555

FOURTH MINING DISTRICT.

Samuel S. Cooper, Inspector.

McDOWELL COUNTY.

TIDEWATER COAL & COKE CO.

No. 317. *Tidewater Mine.*—This mine is located on the main line of the N. & W. R. R., on Elkhorn river, one mile from Kimble. The name of the coal mined is the Pocahontas smokeless which at this place varies in thickness from 5 feet to 5 feet 7 inches. The mine is developed on the double entry system, with 70 foot pillars between entries, room turned 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Explosive gases are found in this mine in small quantities. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are 60 feet regularly driven, mine doors and stoppings in good repair. The ventilation is produced by 18 and 7 foot electric fans which furnish 46,765 cubic feet of air per minute, which is sufficient air and properly distributed throughout the mine. All mechanical appliances used in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. Rules are posted and the company keeps on hand blankets and stretchers. During the past year this company built one hundred new ovens, fifty houses and new store, electric power and boiler house, large electric pump for the mines and conveyors to haul coal from the slope to tipple. They are now able to more than double their output. This is a plant of three hundred ovens.

During the year four inspections were made of the mine and three certificates issued to the company.

J. W. MISKELL, Supt.

SAM CAMPBELL, Mine Boss.

THOS. BOOTH, Fire Boss.

BOTTOM CREEK COAL & COKE CO.

No. 318. *Bottom Creek Mine.*—This mine is located on the main line of the N. & W. R. R., on Elkhorn river, 1-2 mile from Vivian. The name of coal mined is Pocahontas smokeless which averages from 5 feet to 5 feet 10 inches in thickness. This mine is developed on the double entry system, 60 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine properly timbered, drainage also being good. The mine generates a small quantity of gas. The roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements. Cross-cuts are 60 feet apart and regularly driven. Mine doors and stoppings are in good repair. Ventilation is produced by a 16-foot exhaust fan which furnishes 48,500 cubic feet of air per minute, which is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a very satisfactory condition. Oil used is legal test and up to the standard. Rules are posted and the company keeps at the mine blankets, stretchers, etc., as required by law. This company has opened a new haulway which does away with

the old dip entry. The engine now pulls four times as much as it could before over the old haulway. This is a two hundred oven plant. Four inspections were made of the mine during the year and four certificates issued to the company.

SAM'L PATTERSON, Supt.

JAS. COOPER, Mine Boss.

PEERLESS COAL & COKE CO.

No. 319. *Peerless Mine*.—This mine is located on the main line of the N. & W. R. R., on Elkhorn river at Vivian. The name of the coal mined is the Pocahontas smokeless, which at this place averages in thickness 6 feet. The mine is developed on the double entry system, 70 foot pillars between entries, rooms driven 60 feet from center to center and 21 feet wide. The roof of this mine is good and the mine is properly timbered. Drainage in all parts is good. Explosive gases are not found, although they keep a fire boss, who goes into the mine at 3 o'clock in the morning and examines every place and reports the condition of the mine on a blackboard at the drift mouth. Roadways are free from loose slate and there is sufficient room along haulways. Second opening is clear and comes up to the requirements of law. Cross-cuts are driven 70 and 100 feet regularly. Mine doors and stoppings are in good repair. Ventilation is produced by a 12 foot exhaust fan which furnishes 57,700 cubic feet of air per minute which is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. Rules are posted and blankets and stretchers are kept on hand at the mine as required by law. There is in use at this mine two 5-ton locomotives which pull coal from rooms and headings. During the year four inspections were made of this mine and four certificates issued to the company.

B. T. HUBBARD, Supt.

W. H. DEVENNEY, Mine Boss.

EMPIRE COAL & COKE CO.

No. 320. *Empire Mine*.—This mine is located on the main line of the N. & W. R. R., on Elkhorn river at Landgraf. The name of the coal mined is the Pocahontas smokeless, which averages 6 feet in thickness. This mine is developed on the double entry system with 70 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good. The mine is properly timbered and drainage is good in all parts of the mine. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 70 and 100 feet regularly. Mine doors and stoppings are in good repair. The ventilation is produced by a 16-foot exhaust fan which produces 88,000 cubic feet of air per minute, which is sufficient and properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes in the mine is legal test and comes up to the standard. Rules are posted and the company keeps on hand stretchers and blankets as required by law. Each year brings the Empire mines into better shape for shipment. They are equipped with 'phones through all the partings on the inside and the

motorman is always signaled as to what parting is ready to be drawn. This is the best equipped mine in this district. Three inspections were made during the year and three certificates issued to the company.

W. D. ORD, Supt.

THOS. BARRETT, Mine Boss.

SHAWNEE COAL & COKE CO.

No. 321. *Shawnee Mine*.—This mine is located on a branch of the N. & W. R. R., on Dan's Creek at Eckman. The coal mined is known as the Pocahontas smokeless, which averages in thickness from 6 to 7 feet. The mine is developed on the double entry system, with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good after draw slate is taken down, and the mine is properly timbered. Drainage is fair in all parts of the mine. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 70 to 100 feet apart, and mine doors and stoppings are in good repair. The ventilation is produced by a 14-foot exhaust fan which produces 50,760 cubic feet of air per minute, which is sufficient and properly distributed throughout the mines. All mechanical appliances used in and about the mine were found in a satisfactory condition. Rules are posted and the company keeps on hand stretchers and blankets as required by law. This company has built ten new houses, a new store house and fifty ovens, all during the past year. This is a plant of one hundred and sixty-three ovens. There were three inspections made of the mine during the year and three certificates issued to the company.

P. P. FLANNAGAN, Supt.

CHAS. COONEY, Mine Boss.

EUREKA COAL & COKE CO.

No. 322. *Eureka Mine*.—This mine is located on a branch of the N. & W. R. R., on Dan's Creek about 3-4 of a mile from Eckman. The name of the coal mined is known as the Pocahontas smokeless, which averages in thickness 7 feet. It is developed on the double entry system with 80 foot pillars between entries and rooms 60 feet from center to center and 21 feet wide. The roof is good after the draw slate is taken down. The drainage is not good, and there is being driven a deep ditch from the outside to drain the mine. Explosive gases are not found. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 70 to 100 feet regularly, and the mine doors and stoppings were found to be in good repair. The ventilation is produced by a 16-foot exhaust fan which furnishes 61,600 cubic feet of air per minute, which is sufficient and properly distributed throughout the mine. All mechanical appliances in use in and about the mine are in good condition. Rules are posted, and stretchers and blankets are kept on hand at the mine. There were three inspections made of the mine during the year and three certificates issued to the company.

L. E. TIERNEY, Supt.

CHAS. HUGHES, Mine Boss.

PULASKI IRON CO.

No. 323. *Pulaski Mine*.—This mine is located on a branch of the N. & W. R. R., on Dan's Creek at Eckman. The coal mined is the Pocahontas smokeless, which at this place is 6 1-2 feet thick. This mine is developed on the double entry system, with 70 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good after draw slate is taken down, and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along all haulways. The second opening is clear and meets the requirements of the law. Cross-cuts are 100 feet and regularly driven. Mine doors and stoppings are in good repair. The ventilation is produced by a 16-foot exhaust fan, which furnishes 70,000 cubic feet of air per minute which is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found satisfactory. Oil used for illuminating purposes in the mine is of legal test and up to the standard. Rules are posted, and the company keeps on hand at the mine stretchers and blankets as required by law. This company has erected a new tippie, graded a new tram road and built about ten houses during the past year. This is a two hundred oven plant. During the year three inspections were made of this mine and three certificates issued to the company.

C. E. F. BURNLEY, Supt. J. M. SHANKS, Mine Boss.

KEYSTONE COAL & COKE CO.

No. 324. *Keystone Mine*.—This mine is located on the main line of the N. & W. R. R., on Elkhorn river at Keystone. The coal mined is known as the Pocahontas smokeless, and is 6 feet thick. The mine is developed on the double entry system, with 100 foot pillars between entries, and rooms driven 100 feet from center to center and 23 feet wide. The roof is good after draw slate is taken down. Drainage is fair. After new haulway is completed the drainage will be good. Explosive gases are not found in this mine. Roadways are free from loose slate and sufficient room along haulways. The second opening is clear and comes up to the requirements of law. Cross-cuts are driven 100 feet regularly. Mine doors and stoppings are in good repair. The ventilation is produced by a 10 foot exhaust fan which furnishes 69,000 cubic feet of air per minute which is sufficient and properly distributed throughout the mine. All mechanical appliances used in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes is legal test and up to the standard. Rules are posted at the mine and the company keeps on hand the necessary stretchers and blankets. This is one hundred and eighty oven plant. During the year there were four inspections made of this min and four certificates issued to the company.

J. K. F. STEELE, Supt.

JOHN MURRAY, Mine Boss.

No. 325. *Keystone Mine No. 2*.—This mine is opened at Burke Creek, one mile from Keystone. The coal mined is the Pocahontas smokeless, which averages in thickness 6 feet. This mine is developed on the single and double entry systems with 100 foot center. Roof is good after draw slate is taken down. The stoppings are in good repair and roadways free

from loose slate. Cross-cuts are driven 80 and 100 feet regularly. Drainage is good. Oil used for illuminating purposes is legal test. The mine is properly timbered. Ventilation is produced by a 10-foot fan which furnishes 36,000 cubic feet of air per minute, properly distributed throughout the mine. The company keeps on hand blankets and stretchers as required by law. The coal from this mine is drawn through No. 1 mine to the tippie. There were two inspections made of the mine during the year and two certificates issued to the company.

J. K. F. STEELE, Supt.

GEO. SMITH, Mine Boss.

ALGOMA COAL & COKE CO.

No. 326. *Algoma Mine*.—This mine is located on the north fork branch of the N. & W. R. R., on Buzzard Creek at Algoma. The coal mined is the Pocahontas smokeless which is 6 1-2 feet thick at this place. This mine is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good after draw slate is taken down, and the mine is properly timbered. Drainage is fair. Gas is found in small quantities. The roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and comes up to the requirements of law. Cross-cuts are driven 100 feet regularly. Mine doors and stoppings are in good repair. Ventilation is produced by a 16-foot exhaust fan which furnishes 49,500 cubic feet of air per minute. This is sufficient air and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found satisfactory. The oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted at the mine, and the company keeps on hand the necessary stretchers and blankets as required by law. On the morning of September the 15th there was an explosion at this mine, in which sixteen men lost their lives, fourteen colored and two white. The contractors who were notified and agreed to examine the mine that morning failed to do so. After the electric fan was started it drove the gas out on the men at that time who were just going in. It was neglect and carelessness that caused the explosion. There were four inspections made of this mine during the year and four certificates issued to the company.

WM. J. BEURY, Supt.

THOS. LIGHTFOOT, Mine Boss.

No. 327. *Algoma Coaling Station*.—This mine is located on the main line of the N. & W. R. R., on Elkhorn river at North Fork. It supplies coal for the Norfolk & Western engines. The name of the coal mined is the Pocahontas smokeless, which averages 6 feet in thickness. This mine is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good after draw slate is taken down. The mine is properly timbered and drainage fair. Explosive gases are not found. The roadways are free from loose slate and there is sufficient room along haulways. Second opening is clear and up the requirements. Cross-cuts are driven 100 feet regularly. The ventilation is natural, 13,000 cubic feet of air per minute. This is sufficient and properly distributed throughout the mine. Mine doors and stoppings are in good repair. All mechanical appliances in use

in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes in the mines is legal test and up to the standard. Rules are posted, and blankets and stretchers kept on hand at the mine. There were four inspections made of the mine during the year and four certificates issued to the company. This is a seventy-five oven plant.

WM. J. BEURY, Supt.

LEVI BOLEN, Mine Boss.

No. 328. *Piney Mine No. 3.*—This mine is located on Buzzard's Branch. The coal mined is the Pocahontas smokeless, which averages in thickness 6 1-2 feet. The mine is developed on the double entry system with 80 foot pillars between entries, and rooms driven 60 feet from center to center and 21 feet wide. The roof of this mine is not good, the slate giving them considerable trouble. The mine is properly timbered, and drainage is fair. There are no explosive gases found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. Second opening is clear and comes up to the requirements of law. Cross-cuts are driven 100 feet regularly. The ventilation is produced by furnace which furnishes 13,796 cubic feet of air per minute. This is sufficient air and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes in the mine is legal test and is up to the standard. Rules are posted and blankets and stretchers kept at the mine. There were four inspections made of the mine during the year and four certificates issued to the company.

W. J. BEURY, Supt.

JOHN STEWART, Mine Boss.

GILLIAM COAL & COKE CO.

No. 329. *Gilliam Mine.*—This mine is located on the North Fork branch of the N. & W. R. R., on North Fork river at the town of Gilliam. The coal operated in the Pocahontas smokeless, which varies in thickness from 5 feet to 5 feet 5 inches. This mine is developed on the double entry system with 80 foot pillars between entries, and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and mine is properly timbered. No explosive gases are found, and drainage is good in all parts of the mine. The roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 100 feet regularly. Mine doors and stoppings are in good repair, ventilation being produced by a 12-foot exhaust fan which furnishes 52,400 cubic feet of air per minute. This is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine is legal test and up to the standard. Rules are posted, and the company keeps at the mine blankets and stretchers. This company is now making preparations to put in a new 18-foot fan for better ventilation. This is a plant of two hundred and seventeen ovens. There were three inspections made of the mine during the year and three certificates issued to the company.

P. P. FLANNAGAN, Supt.

FRANK McCLUSKY, Mine Boss.

ROLFE COAL & COKE CO.

No. 330. *Rolfe Mine.*—This mine is located on the North Fork branch

of the N. & W. R. R., on North Fork river at Rolfe. The Pocahontas smokeless coal is operated, which varies in thickness from 5 feet to 5 feet and 6 inches. The workings are developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine properly timbered. Drainage is good in all parts of the mine. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along all haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 100 feet regularly, and mine doors and stoppings are in good repair. The ventilation is produced by a 14 foot exhaust fan which furnishes 43,618 cubic feet of air per minute, and this is sufficient and properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine is legal test and comes up to the standard. Rules are posted and stretchers and blankets kept on hand at the mine. This is a plant of one hundred and seven ovens. There were three inspections made of the mine during the year and three certificates issued to the company.

JAS. E. JONES, Supt.

WIT McCANN, Mine Boss.

ROANOKE COAL & COKE CO.

No. 331. *Roanoke Mine*.—This mine is located on the North Fork branch of the N. & W. R. R., on the North Fork river about 3-4 of a mile from Rolfe. The coal mined is the Pocahontas smokeless, which varies in thickness from 5 feet to 5 feet 6 inches, and is developed on the double entry system with 72 feet pillars between entries, rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine properly timbered. Drainage is good in all parts. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of law. Cross-cuts are 60 and 100 feet driven regularly, and mine doors and stoppings are in good repair. Ventilation is produced by a ten foot exhaust fan which furnishes 57,500 cubic feet of air per minute and it is properly distributed throughout the mine. All mechanical appliances used in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes in the mine is legal test and up to the standard. Rules are posted at the mine and stretchers and blankets kept on hand. This is a plant of one hundred and thirty ovens. There were three inspections made of the mine during the year and three certificates issued to the company.

W. C. EASLEY, Supt.

M. F. COX, Mine Boss.

INDIAN RIDGE COAL & COKE CO.

No. 332. *Indian Ridge Mine*.—This mine is located on the North Fork branch of the N. & W. R. R., on North Fork river, one mile from Rolfe. The coal mined is the Pocahontas smokeless, which varies in thickness from 5 feet to 5 feet 3 inches, and is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine properly

timbered. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 60 and 100 feet. Mine doors and stoppings are in good repair. Ventilation is produced by fan 8x9 Capell, which furnishes 42,000 cubic feet of air per minute, which is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine is legal test and up to the standard. Rules are posted at the mine and blankets and stretchers kept on hand as required by law. This company has under construction one hundred new ovens, which will make a two hundred plant when completed. There were three inspections made of this mine during the year and three certificates issued to the company.

C. BOTSFORD, Supt.

JESSE HACKWORTH, Mine Boss.

ARLINGTON COAL & COKE CO.

No. 333. *Arlington Mine.*—This mine is located on the North Fork branch of the N. & W. R. R., on North Fork river at Arlington. The coal mined is the Pocahontas smokeless, which varies in thickness from 5 feet to 5 feet 6 inches and is developed on the double entry system with 75 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine properly timbered. Drainage is fair in all parts of the mine. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 60 and 10 feet, and mine doors and stoppings are in good repair. The ventilation is produced by an 18-foot fan which furnishes 42,427 cubic feet of air per minute. This is sufficient and is properly distributed throughout the mine. All mechanical appliances used in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes in the mine is legal test and is up to the standard. Rules are posted and stretchers and blankets kept on hand at the mine as required by law. This company has opened up a new haulway, which shortens their haul about 3-4 of a mile. This puts their haulage in very good shape and they can more than double their output. This is a plant of one hundred and fifty ovens. There were three inspections made of this mine during the year and three certificates issued to the company.

P. P. FLANNAGAN, Supt.

FRANK GALLAHER, Mine Boss.

GREENBRIER COAL & COKE CO.

No. 334. *Greenbrier Mine.*—This mine is located on the North Fork branch of the N. & W. R. R., on North Fork river 3-4 of a mile above McDowell. The coal mined is the Pocahontas smokeless, and is developed on the double entry system with 60 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The coal at this mine averages 6 feet in thickness. The roof is good and the mine is properly timbered. Drainage in all parts of the mine is good. Explosive gases are not found in this mine. Roadways are free from loose slate and

there is sufficient room along the haulways. The second opening of this mine is clear and meets the requirements of the law. Mine doors and stoppings are in good repair and cross-cuts are driven 80 and 100 feet regularly. The ventilation is produced by a 12-foot exhaust fan which furnishes 42,800 cubic feet of air per minute which is sufficient and is properly distributed throughout the mine. All mechanical appliances used in and about the mine were found in a satisfactory condition. Oil used in the mine is legal test and up to the standard. Rules are posted at the mine and the company keeps on hand the necessary stretchers and blankets as required by law. During the past year this company has built one hundred new ovens and ten new houses. This is a two hundred oven plant. There were three inspections made of this mine during the year and three certificates issued to the company.

JAIRUS COLLINS, Supt.

C. W. ATKINSON, Mine Boss.

McDOWELL COAL & COKE CO.

No. 335. *McDowell Mine.*—This mine is located on a branch of the N. & W. R. R., on North Fork river about one mile above McDowell. The coal mined is the Pocahontas smokeless, which varies in thickness from 4 to 5 feet and is developed on the double entry system with 80 foot pillars between entries and rooms driven 65 feet wide from center to center and 21 feet wide. The roof is good and the mine properly timbered. Drainage is good and explosive gases not found in the mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 80 feet regularly and mine doors and stoppings in good repair. Ventilation is produced by a 16-foot exhaust fan, which furnishes 72,800 cubic feet of air per minute. This is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. The oil used for illuminating purposes is legal test and up to the standard. Rules are posted, and this company keeps on hand blankets and stretchers as required by law. This is a plant of two hundred ovens, and the mine is in better condition now than for the past two years, the tracks and haulways being good. Fifty per cent. of the coal mined is done by air machines. There were three inspections made of the mine during the year and three certificates issued to the company.

THOS. COOPER, Supt.

JAS. DEVENNEY, Mine Boss.

ASHLAND COAL & COKE CO.

No. 336. *Ashland Mine No. 1.*—This mine is located on a branch of the N. & W. R. R., on North Fork river at Ashland. The coal mined is the Pocahontas smokeless, which varies in thickness from 4 feet to 4 feet 9 inches and is developed on the double entry system with 60 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good, mine properly timbered and drainage is good. The roadways are free from loose slate and there is sufficient room on each side of the track. The second opening is clear and meets the requirements of the law. Cross-cuts are driven 100 feet regularly and mine doors

and stoppings are in good repair. The ventilation is produced by a 16-foot exhaust fan which furnishes 65,000 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition, and oil used for illuminating purposes in the mine is legal test and up to the standard. Rules are posted at the mine and this company keeps on hand the necessary stretchers and blankets. There were three inspections made during the year and three certificates issued to the company.

EDWARD PHILIPS, Supt.

THOS. AKERS, Mine Boss.

No. 337. *Ashland Mine No. 2.*—This is a new mine just opened in the Pocahontas seam, which varies from 4 feet to 4 feet 9 inches. It is located on a branch of the N. & W. R. R., 3-4 of a mile from Ashland. This mine will be developed on the double entry system, at present the main entry being driven only 75 feet. The company is now pushing the main and air course to open cross entry, and to get the mine in shape to ship coal. They are also making preparations to put in a 16-foot fan, and have under construction one hundred new ovens and thirty new houses. One inspection was made of this place during the year and certificate issued to the company.

EDWARD PHILIPS, Supt.

THOS. AKERS, Mine Boss.

CHEROKEE COLLIERY CO.

No. 338. *Cherokee Mine.*—This mine is located on a branch of the N. & W. R. R., on North Fork river one mile from Ashland. The coal mined is the Pocahontas smokeless, which averages about 5 feet in thickness. This mine will be developed on the double entry system. The roof is good and drainage fair. The roadways are free from loose slate and the second opening is clear and meets the requirements of the law. Oil used for illuminating purposes in the mine is legal test and up to the standard. Stoppings are in good repair. Ventilation is produced by a furnace which furnishes 13,000 cubic feet of air per minute. This is sufficient and is properly distributed throughout the mine. No explosive gases are found in this mine, and the company keeps on hand blankets and stretchers as required by law. They have under construction at this place one hundred new ovens and fifty houses. Two inspections were made of this mine during the year and two certificates issued to the company.

JAIRUS COLLINS, Supt.

WM. ARMSTRONG, Mine Boss.

ELKRIDGE COAL & COKE CO.

No. 339. *Elkridge Mine.*—This mine is located on the North Fork branch of the N. & W. R. R., on North Fork river 1-4 mile from North Fork Junction. The coal mined is the Pocahontas smokeless, which varies from 6 to 7 feet in thickness, and is developed on the double entry system, entry pillars being 80 feet and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is good, and no explosive gases are found in this mine. Roadways are free from loose slate and there is sufficient room along all haulways. The second opening is clear and comes up to the re-

quirements of the law. Cross-cuts are driven 100 feet regularly, and ventilation is produced by a 16-foot exhaust fan which furnishes 63,500 cubic feet of air per minute. This is properly distributed throughout the mine and is sufficient. Mine doors and stoppings are in good repair, and all mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted, and the company keeps on hand at the mine the necessary stretchers and blankets as required by law. This is a plant of one hundred and forty-one ovens. There were four inspections made of this mine during the year and four certificates issued to the company.

L. E. TIERNEY, Supt.

R. P. BOWLES, Mine Boss.

LYNCHBURG COAL & COKE CO.

No. 340. *Lynchburg Mine*.—This mine is located on the main line of the N. & W. R. R., on Elkhorn river at Powhatan. The coal mined is the Pocahontas smokeless, which is 8 feet thick here, and is developed on the double entry system with 70 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine properly timbered. Drainage is fair. Explosive gases are not found in this mine. The roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 70 and 100 feet regularly. Mine doors and stoppings are in good repair. Ventilation is produced by a 15-foot exhaust fan, which furnishes 57,756 cubic feet of air per minute. This is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found to be in a satisfactory condition. Oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted at the mines. This company keeps on hand at the mine blankets and stretchers as required by law. This company has erected a brick engine and boiler house, also put in Ingersol-Sargent air compressor and conveyors, which will do away with the old incline. This, after it is complete, will be an improvement on their output. This is a plant of two hundred and thirty-four ovens. There were four inspections made of this mine during the year and four certificates issued to the company.

L. E. TIERNEY, Supt.

WM. HEATHERMAN, Mine Boss.

POWHATAN COAL & COKE CO.

No. 341. *Powhatan Mine*.—This mine is located on the main line of the N. & W. R. R., on Elkhorn river at Powhatan. This operation has two openings and the name of the coal mined is Pocahontas smokeless, which is 8 feet thick at this place, and is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and meets the requirements of the law. Cross-cuts are driven 60 and 100 feet regularly. Doors and stop-

pings are in good repair. The ventilation is produced by two 16-foot exhaust fans, one at each drift, which furnish 70,000 cubic feet of air per minute at No. 1 drift and 71,000 cubic feet per minute at No. 2 drift. This is sufficient air and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found to be in a satisfactory condition. Oil used for illuminating purposes in the mine is legal test and up to the standard. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. This is a plant of two hundred and thirty ovens. During the year this mine was inspected four times and four certificates were issued to the company.

L. E. TIERNEY, Supt.

J. DALTON, Mine Boss.

UPLAND COAL & COKE CO.

No. 342. *Upland Mine No. 1.*—This mine is located on the main line of the N. & W. R. R., on Elkhorn river at Elkhorn. The coal mined is the Pocahontas smokeless, which is 8 feet thick at this place, and is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and up to the requirements of the law. Cross-cuts are driven 60 and 100 feet regularly and mine doors and stoppings are in good repair. Ventilation is produced by a 20 foot fan exhaust which gives 48,500 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes is legal test and up to the standard. Rules are posted at the mine and stretchers and blankets kept on hand as required by law. This is a plant of two hundred and fifty ovens. There were three inspections made of the mine during the year and three certificates issued to the company.

J. J. LINCOLN, Supt.

JNO. GRANSHAW, Mine Boss.

No. 343. *Upland Mine No. 2.*—This mine is located on the main line of the N. & W. R. R., on Elkhorn river at Elkhorn. The coal mined is the Pocahontas smokeless, which is 8 feet thick at this place, and is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is good and explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and comes up to the requirements. Cross-cuts are driven 60 and 80 feet regularly, and mine doors and stoppings were found to be in good repair. Ventilation is produced by a 25-foot fan at the Crozer No. 1 mine which furnishes 10,750 cubic feet of air per minute, and it is properly distributed throughout the mine and is sufficient. All mechanical appliances in use in and about the mine were found satisfactory. Oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted at the mines and blankets and stretchers kept on hand as required

by law. There were three inspections made of this mine during the year and three certificates issued to the company.

J. J. LINCOLN, Supt.

J. H. BURTON, Mine Boss.

HOUSTON COAL & COKE CO.

No. 334. *Houston Mine No. 1.*—This mine is located on the main line of the N. & W. R. R., on Elkhorn river at Elkhorn. The coal mined is the Pocahontas smokeless, which is 8 feet thick at this place. This mine is developed on the double entry system with 60 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there are four feet on side of track. The second opening is clear and up to the requirements of the law. Cross-cuts are regularly driven 80 feet, and mine doors and stoppings were found to be in good repair. The ventilation is produced by a 16-foot exhaust fan which furnishes 70,000 cubic feet of air per minute. This is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine for illuminating purposes is legal test and up to the standard. The company keeps on hand at the mine blankets and stretchers. This company has made great improvements during the past year, having built ten new houses, thirty new ovens, new tram road to No. 2 mine and stone engine and boiler house. This is a two hundred and thirty oven plant. There were three inspections made of this mine during the year and three certificates issued to the company.

T. E. HOUSTON, Supt.

C. KERSHAW, Mine Boss.

No. 345. *Houston Mine No. 2.*—This mine is located on the main line of the N. & W. R. R., on Elkhorn river 1-4 mile from Elkhorn. The name of the coal mined is the Pocahontas smokeless, which is 8 feet at this place in thickness. This mine is developed on the double entry system with 60 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and mine is properly timbered. Drainage is good in all parts of the mine. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along all haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 80 feet regularly, and mine doors and stoppings were found in good repair. Ventilation is produced by a 16-foot fan from No. 1 mine, which furnishes 37,700 cubic feet of air per minute, which is properly distributed throughout the mine and is sufficient. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted and the company keeps on hand at the mine the necessary stretchers and blankets as required by law. There were three inspections made of this mine during the year and three certificates issued to the company.

BENJ. LEWIS, Supt.

JAMES MOORE, Mine Boss.

CROZER COAL & COKE CO.

No. 346. *Crozer Mine No. 1.*—This mine is located on the main line of the N. & W. R. R., on Elkhorn river 1-4 mile from Elkhorn. The coal mined is the Pocahontas smokeless which is 8 feet thick at this place, and is developed on the double entry system with 80 foot pillars and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Roadways are free from loose slate and sufficient room along the haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 60 and 100 feet regularly. Mine doors and stoppings are in good repair. The ventilation is produced by a 25 foot exhaust fan which furnishes 83,350 cubic feet of air per minute. This is sufficient air and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and is up to the standard requirement. Rules are posted at the mine and blankets and stretchers kept on hand as required by law. This company has now under construction a large steel tippie which is supposed to be the largest steel tippie in West Virginia, and which the company intends to have in operation by December. This company has three hundred and fifty ovens. There were three inspections made of this mine during the year and three certificates issued to the company.

SAM'L EVANS, Supt.

RICHARD BAILEY, Mine Boss.

No. 347. *Crozer Mine No. 2.*—This mine is located on the main line of the N. & W. R. R., on Elkhorn river 3-4 of a mile above Elkhorn. The coal mined is the Pocahontas smokeless, which is 8 feet thick at this place, and is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is well timbered. Drainage is fair, and explosive gases are not found in this mine. Roadways are free from loose slate and the second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 60 and 100 feet regularly, and mine doors and stoppings were found in good repair. The ventilation is produced by a 14-foot exhaust fan and produces 43,600 cubic feet of air per minute, which is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine is legal test and up to the standard. Rules are posted, and stretchers and blankets are kept on hand at the mine as required by law. They have made a new opening at this mine which is a fine piece of work. This will connect with the new tippie, and they have everything in shape to dump coal when new tippie is complete. There were three inspections made of the mine during the year and three certificates issued to the company.

SAM'L EVANS, Supt.

GEORGE GUY, Mine Boss.

TURKEY GAP COAL & COKE CO.

No. 348. *Turkey Gap Mine.*—This mine is located on the main line of the N. & W. R. R., on Elkhorn river 1-4 of a mile from Ennis. The coal mined is the Pocahontas smokeless which is 8 feet thick at this place, and is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide.

There is a 100 foot pillar between air course and main entry. The roof is good and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and meets the requirements of the law. Cross-cuts are driven 60 and 100 feet regularly. Mine doors and stoppings are in good repair, and ventilation is produced by a 20 foot exhaust fan which furnishes 89,000 cubic feet of air per minute. This is sufficient and the air is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. Rules are posted at the mine and the company keeps on hand the necessary stretchers and blankets as required by law. This company has opened up a new haulway which is an improvement over the old one, as one engine can do again as much work as the two could over the old haulway. This is a plant of two hundred and forty ovens. There were three inspections made of the mine during the year and three certificates issued to the company.

WM. McQUAILL, Supt.

JAS. HOPKINS, Mine Boss.

NORFOLK COAL & COKE CO.

No. 349. *Norfolk Mine*.—This mine is located on a branch of the N. & W. R. R., and at Maybeury. The coal mined is the Pocahontas smokeless which varies in thickness from 7 to 8 feet, and is developed on the double entry system with 80 foot pillars between entries and rooms are driven 60 foot from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is fair, and explosive gases are not found in the mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements. Cross-cuts are driven 60 and 100 feet regularly. Mine doors and stoppings are in good repair. The ventilation is produced by a 25 foot fan which furnishes 70,000 cubic feet of air per minute. This is sufficient air and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted at the mine and the company keeps on hand the necessary stretchers and blankets as required by law. They have made a new opening at this mine on the opposite side of the Angle mine, and have connected the main heading and the largest part of their work. They have also put in a new 25-foot fan, and are erecting a new tippie to be used by Angle and Norfolk mines. They also have under construction 50 new ovens. This is a plant of two hundred and twelve ovens. There were three inspections made of the mine during the year and three certificates issued to the company.

JAMES JONES, Supt.

WM. JONES, Mine Boss.

No. 350. *Angle Mine*.—This mine is located on a branch of the N. & W. R. R., on East Fork of Elkhorn river, one mile from Maybeury. The coal mined is the Pocahontas smokeless, which varies in thickness from 7 to 8 feet. The mine is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to

center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is good. There are no explosive gases found in the mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and meets the requirements of the law. Cross-cuts are 70 and 100 feet regularly driven. Mine doors and stoppings are in good repair. The ventilation is produced by a 20-foot exhaust fan, which furnishes 50,000 cubic feet of air per minute. This is sufficient air and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted and the company keeps on hand the necessary stretchers and blankets as required by law. This company has under construction fifty new ovens and when completed this will be a one-hundred and fifty oven plant. There were three inspections made of the mine during the year and three certificates issued to the company.

JAMES JONES, Supt.

WILLIAM JONES, Mine Boss.

No. 351. *Lick Branch Mine.*—This mine is located on a branch road of the N. & W. R. R., on Lick Branch of Elkhorn, 1-2 mile from Ennis. The coal mined is the Pocahontas smokeless, which is 8 feet thick at this place, and is developed on the double entry system with pillar between air course and main entry 100 feet thick, from main entry to first room 217 feet thick. Rooms are driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is well timbered. Drainage is good and the second opening is clear and comes up to the requirements of the law. Stoppings are in good repair. Ventilation is produced by a 20-foot fan, which produces 67,500 cubic feet of air per minute. Oil used is legal test and up to the standard. Rules are posted at the mine as required by law. The company keeps on hand the necessary stretchers and blankets as required by law. This is a plant of one hundred and fifty-six ovens. There were three inspections made of this mine during the year and three certificates issued to the company.

JAS. JONES, Supt.

WM. WALTERS, Mine Boss.

No. 352. *Delta Mine.*—This mine is located on a branch of the N. & W. R. R., on a branch of the Elkhorn River, one mile above Ennis. The coal mined is the Pocahontas smokeless, which varies in thickness 7 to 8 feet and is developed on the double entry system and single, with 85 and 100 foot pillars between entries, rooms 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. Cross-cuts are driven 60 and 100 feet apart. The second opening is clear and comes up to the requirements of the law. Mine doors and stoppings are in good repair. The ventilation is produced by a 16 foot fan, which is sufficient air and it is distributed throughout the mine. Oil used in this mine is legal test and up to the standard. Rules are posted at the mine, and the company keeps on hand the necessary stretchers and blankets as required by law. This is a plant of one hundred and twenty ovens. The company has recently put in a new 16 foot fan which gives satisfactory results.

There were three inspections made of the mine during the year and three certificates issued to the company.

JAS. JONES, Supt.

J. K. WHITEHEAD, Mine Boss.

SHAMOKIN COAL & COKE CO.

No. 353. *Shamokin Mine*.—This mine is located on a branch of the N. & W. R. R., on Elkhorn River at Maybeury. The coal mined is the Pocahontas smokeless which is 7 feet thick at this place, and is developed on the double entry system with 75 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is well timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along all haulways. The second opening is clear and comes up to the requirements of law. Cross-cuts are driven 100 feet regularly. The mine doors and stoppings are in good condition. Ventilation is produced by a 14 foot fan which furnishes sufficient air and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine is legal test and is up to the standard requirement. Rules are posted and the company keeps on hand at the mine the necessary stretchers and blankets as required by law. This is a plant of two-hundred ovens. There were three inspections made of the mine during the year and three certificates issued to the company.

JAS. JONES, Supt.

J. O. SMITH, Mine Boss.

ELKHORN COAL & COKE CO.

No. 354. *Elkhorn Mine*.—This mine is located on a branch of the N. & W. R. R., on Elkhorn River, a quarter of a mile from Maybeury. The coal mined is the Pocahontas smokeless. It is developed on the double entry system and single entry, rooms being driven 68 feet from center to center and 21 feet wide, with 100 foot pillars between air course and main entry. The roof is good and the mine is properly timbered. No explosive gases are found in this mine. The roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and it comes up to the requirements of the law. Cross-cuts are driven 60 and 100 feet. Doors and stoppings are in good repair. The ventilation is produced by a 13 foot fan exhaust, which furnishes 67,000 cubic feet of air per minute and it is properly distributed throughout the mine. Oil used for illuminating purposes in the mine is legal test and up to the standard. The company keeps stretchers and blankets on hand at the mine and rules are posted as required by law. This is a plant of two hundred ovens. Three inspections were made of the mine during the year and three certificates issued to the company.

J. E. BARLOW, Supt.

L. B. HOLLIDAY, Mine Boss.

BIG FOUR COAL & COKE CO.

No. 355. *Big Four Mine*.—This mine is located on the main line of the N. & W. R. R., on Elkhorn River, three miles from Kimball. The coal mined is known as the Pocahontas smokeless, which varies in thickness from 5 to 6 feet. This mine is developed on the double entry system and

has 60 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is fair. Explosive gases are found in this mine in small quantities. Roadways are free from loose slate and there is sufficient room along all haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are 60 feet regularly driven. Doors and stoppings are in good repair. The ventilation is produced by two 10 foot fans, which produce 26,600 cubic feet of air per minute. This is sufficient air and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. Rules are posted, and the company keeps on hand at the mine stretchers and blankets as required by law. This company has just finished sinking an air and pump shaft, which will benefit ventilation in this mine, and also a good drainage where water can be pumped to the outside.

W. H. COFFMAN, Supt.

P. R. CRAIG, Mine Boss.

S. V. HARVEY, Fire Boss.

BIG SANDY COAL & COKE CO.

No. 356. *Big Sandy Mine*.—This mine is located on the main line of the N. & W. R. R., on Tug River at Big Sandy. The coal mined is the Pocahontas Thin vein, or Tug River, which varies in thickness from 3 to 4 foot. It is developed on the double entry system with 70 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The mine is properly timbered. Drainage is fair. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along all haulways. Second opening is clear and meets with the requirements. Cross cuts are driven 70 and 100 feet regularly. Doors and stoppings are in good repair. Ventilation is produced by a 7 foot fan which furnishes 27,600 cubic feet of air per minute. This is sufficient air and it is properly distributed throughout the mine. Oil used is legal test and is up to the standard. Rules are posted, and the company keep on hand at the mine stretchers and blankets as required by law. During the past year this company has put in a 7 foot fan which gives good results. There were three inspections made of the mine during the year and three certificates issued to the company.

F. L. JEWETT, Supt.

D. W. WOODY, Mine Boss.

VAUGHAN COAL & COKE CO.

No. 357. *Cambridge Mine*.—This mine is located on the main line of the N. & W. R. R., on Tug River one mile above Rodenfield. The coal mined is the Pocahontas Thin vein, or Tug River Smokeless, which varies in thickness from 3 to 4 feet. This mine is developed on the double entry system with 70 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof and drainage are good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements. Cross-cuts are driven 60 and 100 feet regularly. Ventilation is produced by furnace, which gives

18,000 cubic feet of air per minute and it is properly distributed and is sufficient. Oil used in the mine is legal test and is up to the standard. Rules are posted and stretchers and blankets kept on hand at the mine as required by law. There were three inspections made of this mine during the year and three certificates issued to the company.

J. R. VAUGHAN, Supt.

NAT HALL, Mine Boss.

DAVY CROCKETT COAL CO.

No. 358. *Davy Crockett Mine.*—This mine is located on the main line of the N. & W. R. R., on Tug River at Marytown. The coal mined is the Pocahontas Thin vein, or Tug River Smokeless, which varies in thickness from 2 feet 9 inches to 3 feet. The mine is developed on the double entry system. The roof is good. Haulways are free from loose slate. Explosive gases are not found. The mine is properly timbered and drainage is good. The second opening is clear and comes up to the requirements of law. Ventilation is produced by furnace which furnishes 5,500 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. Oil used is legal test and up to the required standard. Rules are posted and the company keep on hand at the mines the necessary stretchers and blankets as required by law. There were three inspections made of this mine during the year and three certificates issued to the company.

T. M. HALL, Supt.

M. KUP, Mine Boss.

TUG RIVER COAL & COKE CO.

No. 359. *Tug River Mine.*—This mine is located on the main line of the N. & W. R. R., on Tug river at Marytown. The coal mined is known as the Pocahontas Thin vein, or Tug river smokeless, which at this place varies in thickness from 3 to 4 feet. This mine is developed on the double entry system with 60 foot pillars between entries and rooms driven 50 feet from center to center and 17 feet wide. The roof and drainage are good. Explosive gases are not found in this mine. Roadways are free from loose slate. Cross-cuts are driven 70 feet regularly. Doors and stoppings are in good repair. The ventilation is produced by a 7-foot fan, which produces 27,680 cubic feet of air per minute, properly distributed throughout the mine. Oil used in the mine is legal test and up to the required standard. The company keeps on hand stretchers and blankets at the mine, and rules are posted as required by law. There were three inspections made of this mine during the year and three certificates issued to the company.

F. L. JEWETT, Supt.

THOS. DAUGHERTY, Mine Boss.

TWIN BRANCH MINING CO.

No. 360. *Twin Branch Mine.*—This mine is located on the main line of the N. & W. R. R., on Tug river branch about one mile from Marytown. The coal mined is the Pocahontas Twin vein, or Tug River Smokeless, which varies in thickness from 3 1-2 to 4 feet. This mine is developed on the double entry system with 60 foot pillars between entries and rooms driven 50 feet from center to center and 18 feet wide. The roof is good and drainage fair. Explosive gases are not found. Roadways are free from loose slate. The second opening is clear and meets the requirements of the law.

Cross-cuts are driven 70 feet regularly. Mine doors and stoppings are in fair repair. The ventilation is produced by a furnace which gives 18,000 cubic feet of air per minute. This is sufficient and is properly distributed throughout the mine. The oil used is legal test and up to the required standard. Rules are posted at the mine and stretchers and blankets kept on hand as required by law. During the past year this company has put in a new air plant, and 75 per cent. of the coal mined is done by air punching machines. There were three inspections made of the mine during the year and three certificates issued to the company.

J. E. RHODEMYRE, Supt.

JAMES COYNE, Mine Boss.

SHORT CREEK COAL CO.

No. 361. *Short Creek Mine.*—This mine is located on the main line of the N. & W. R. R., on Short Creek about 2 miles from Davy. The coal mined is the Pocahontas Smokeless, which varies in thickness from 3 to 4 feet. The mine is developed on the single entry system with 60 foot pillars between entry and air course, rooms being driven 60 feet from center to center and 12 feet wide. The roof and drainage are good. Explosive gases are not found in this mine. Roadways are free from loose slate. Cross-cuts are 60 and 70 feet regularly driven. Doors and stoppings are in good repair, and ventilation is produced by furnace which gives 7,500 feet of air per minute. This is sufficient and it is properly distributed throughout the mine. Oil used is legal test and is up to the standard. Rules are posted as required, and blankets and stretchers kept on hand at the mine. There were three inspections made of the mine during the year and three certificates issued to the company.

C. E. ANGEL, Supt.

A. J. YOUNG, Mine Boss.

POCAHONTAS COLLIERIES CO.

No. 362. *Pocahontas-West Mine.*—This mine is located on the Pocahontas Division of the N. & W. R. R., on Pocahontas river at Pocahontas, Virginia, part of the mine being in McDowell county, West Virginia. The coal mined is the Pocahontas Smokeless, which varies in thickness from 8 to 11 feet at this place, and is developed on the double entry system with 80 foot pillars between entries and rooms are driven 60 feet from center to center and 21 feet wide. The roof is good. Drainage is also good, and explosive gases are not found in the mine. Roadways are free from loose slate, and the second opening is clear and comes up to the requirements of the law. Cross-cuts are 80 feet regularly driven, and mine doors and stoppings are in good repair. Ventilation is produced by a 16-foot fan, which furnishes 36,000 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. Oil used is legal test and up to the standard requirement. Rules are posted and blankets and stretchers kept on hand at the mine as required by law. On the night of September 1st, this mine was set on fire. Those who had set it afire had gathered props and boards and lain them along the pillar for about half a mile and then saturated them with kerosene. The company fought the fire for three weeks, day and night, but were finally compelled to quit. They built cement walls around the fire to smother it out if possible. On my last visit to that

mine I still found some fire which was mostly around surface breaks. There were three inspections made of the mine during the year and three certificates issued to the company.

A. J. KING, Supt.

JOHN COONEY, Mine Boss.

ANTLER COAL CO.

No. 363. *Antler Mine*.—This mine is located on the main line of the N. & W. R. R., on Tug river, 4 miles from Welch. The coal mined is the Pocahontas Thin vein, or Tug River Smokeless, which varies in thickness 3 to 4 feet. This mine is developed on the single and double entry system. Rooms are driven 50 feet from center to center and 70 feet between entries. The roof is good. Drainage is also good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 80 feet regularly, and mine doors and stoppings are in good repair. Ventilation is produced by a furnace which produces 9,000 cubic feet of air per minute, which is sufficient and it is properly distributed throughout the mine. Rules are posted and blankets and stretchers kept on hand at the mine as required by law. Two inspections were made of the mine during the year and two certificates issued to the company.

F. J. BAXTER, Supt.

C. R. WEBB, Mine Boss.

CLETUS COAL & COKE CO.

No. 364. *Cletus Mine*.—This mine is located on the main line of the N. & W. R. R., on Tug river at Davy. The coal mined is the Pocahontas Thin vein or Tug River Smokeless, which varies in thickness from 3 feet to 3 feet 3 inches. This mine is developed on the single entry system with 60 foot pillars between entry and air course. Rooms are driven 50 feet from center to center and 19 feet wide. The roof and drainage are good, and explosive gases are not found in the mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 60 feet regularly, and mine doors and stoppings are in good repair. The ventilation is produced by furnace, which furnishes 18,000 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and comes up to the standard. Rules are posted, and stretchers and blankets are kept on hand at the mine as required by law. There were three inspections made of this mine during the year and three certificates issued to the company.

R. B. HONAKER, Supt.

J. H. BRAGGS, Mine Boss.

BLACKSTONE MINING CO.

No. 365. *Blackstone Mine*.—This mine is located on the main line of the N. & W. R. R., on Tug river at Davy. The name of coal mined is Pocahontas Thin vein, or Tug River Smokeless, which varies in thickness from 3 feet to 3 feet 3 inches. This mine is developed on the double entry system with 70 foot pillars between entries and rooms driven 60 feet from

center to center and 19 feet wide. The roof is good and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and the second opening comes up to the requirements of law. Cross-cuts are driven 60 feet regularly. Mine doors and stoppings are in good repair. Ventilation is produced by a furnace which gives 24,800 cubic feet of air per minute, which is sufficient and is properly distributed throughout the mine. All mechanical appliances used in and about the mine were found in a satisfactory condition. Oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted and the company keeps on hand at the mine stretchers and blankets as required by law. Three inspections were made of the mine during the year and three certificates were issued to the company.

R. B. HONAKER, Supt.

S. S. HARRIS, Mine Boss.

UNITED STATES COAL & COKE CO.

No. 366. *United States Mine No. 1.*—This mine is located on a branch of the N. & W. R. R., on Tug river, 4 miles from Welch. The coal mined is the Pocahontas Smokeless, which varies in thickness 6 to 7 feet. This is a new mine and is developed on the double entry system. Room centers 60 feet and 80 foot pillars between entries. The roof and drainage are good. Roadways are free from loose slate. Explosive gases are not found in this mine. The second opening is clear and meets the requirements of the law. Oil used for illuminating purposes in the mine is legal test and is up to the standard. Cross-cuts are driven 75 and 100 feet regularly. The stoppings are in good repair, and ventilation is produced by a 12 foot fan which furnishes 50,400 cubic feet of air per minute. This is sufficient air and is properly distributed throughout the mine. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. There were two inspections made of the mine during the year and two certificates issued to the company.

J. M. B. REISE, Supt.

GEO. SMITH, Mine Boss.

No. 367. *United States Mine No. 2.*—This mine is located on a branch of the N. & W. R. R., one mile above Wilcoe. This is a new mine. The Pocahontas Smokeless vein is operated, which averages in thickness 6 to 7 feet. The mine is developed on the double entry system, rooms being driven 60 feet from center to center and 80 foot pillars between entries. The roof is good. Drainage is good. Roadways are free from loose slate and there is sufficient room along the haulways. Explosive gases are not found in this mine. The second opening is clear and comes up to the requirements. The oil used at the mine for illuminating purposes is legal test and up to the standard. Cross-cuts are driven 75 and 100 feet regularly. Mine doors and stoppings are in good repair. Ventilation is produced by a 15-foot fan, which gives 43,200 cubic feet of air per minute. This is sufficient air and it is properly distributed throughout the mine. Rules are posted at the mine and the company keeps on hand stretchers and blankets as required by law. There were two inspections made of the mine during the year and two certificates issued to the company.

J. M. B. REISE, Supt.

ALBERT LILLY, Mine Boss.

No. 368. *United States Mine No. 3.*—This mine is located on a branch of the N. & W. R. R., about 1-2 mile above Gray. The coal mined is the Pocahontas Smokeless, which varies in thickness from 4 to 6 feet. The mine is developed on the double entry system with rooms 60 feet from center to center and 80 foot pillars between entries. The roof is good and the mine is properly timbered. Drainage is fair. Roadways are free from loose slate. Explosive gases are not found in this mine. The second opening is clear and meets the requirements of the law. Oil used is legal test and up to the standard. Cross-cuts are driven 75 and 100 feet regularly. Mine doors and stoppings are in good repair, and ventilation is produced by furnace which furnishes 34,400 cubic feet of air per minute which is properly distributed and is sufficient. Rules are posted at the mine, and the company keeps on hand stretchers and blankets as required by law. Two inspections were made of the mine during the year and two certificates issued to the company.

J. M. B. REISE, Supt.

H. FRANKENFIELD, Mine Boss.

No. 368A. *United States Mine No. 4.*—This is a new mine which is located about 2 1-2 miles above Gray. The coal operated is the Pocahontas Smokeless, which averages in thickness 6 to 7 feet. The mine will be developed on the double entry system.

J. M. B. REISE, Supt.

MICHAEL GILLESPIE, Mine Boss.

No. 368B. *United States Mine No. 5.*—This is a new mine which is located on a branch of the N. & W. R. R., about 2 miles above Gray. The coal mined is the Pocahontas Smokeless, which averages in thickness 6 to 7 feet. This mine will be developed on the single and double entry system.

J. M. B. REISE, Supt.

MICHAEL GILLESPIE, Mine Boss.

No. 368C. *United States Mine No. 6.*—This is a new mine which is located on a branch of the N. & W. R. R., about 5 miles above Gray. The Pocahontas Smokeless seam is operated, which averages in thickness from 6 to 7 feet. This mine will be developed on the double entry system.

J. M. B. REISE, Supt.

MICHAEL GILLESPIE, Mine Boss.

MAHER COAL CO.

No. 369. *Mahe Mine.*—This mine is located on a branch of the N. & W. R. R., on Twin branch, 3 miles above Davy. It is a new mine and the coal operated is the Pocahontas Thin vein or Tug River Smokeless, which varies in thickness from 3 to 4 feet. This mine is developed on the single and double entry system with 70 foot pillars between entries and rooms driven 60 feet from center to center. The roof is good and the mine properly timbered. Drainage is fair. Roadways are free from loose slate. Explosive gases are not found in this mine. The second opening is clear and comes up to the requirements of law. Cross-cuts are driven 70 feet regularly. The mine doors and stoppings are in good repair. Ventilation is produced by furnace, which gives 11,000 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Rules are posted. The company keeps on hand at the mine stretchers and blankets as required by law. There were three

inspections made of the mine during the year and three certificates issued to the company.

J. W. McCLAREN, Supt.

C. N. LYLE, Mine Boss.

FLOURNOY COLLIERY CO.

No. 370. *Flournoy Mine*.—This mine is located on the main line of the N. & W. R. R., on Tug river one mile from Big Sandy. The coal mined is the Pocahontas Thin vein, or Tug River Smokeless. After the mine had been driven to the depth of 300 feet they struck a fault, coal dropping from 3 feet 3 inches to about 18 inches. They turned the entry thinking they would pass it, but it seems the fault is wide at this place. Little coal has been shipped from this mine during the past year. Three inspections were made of the mine during the year and three certificates issued to the company.

C. O. SMITH, Supt.

M. W. HYRNE, Mine Boss.

HENSLEY COAL CO.

No. 371. *Hensley Mine No. 1*.—This mine is located on the main line of the N. & W. R. R., on Tug river, two miles from Big Sandy. The coal mined is the Pocahontas Thin vein, or Tug River Smokeless, which varies in thickness from 3 to 4 feet. The mine is developed on the double entry system with 50 foot pillars between entries and air course, and rooms driven 60 feet from center to center and 20 feet wide. The roof is good and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate. The second opening is clear and comes up to the requirements of law. Cross-cuts are driven 80 feet regularly. Ventilation is produced by furnace which gives 10,882 cubic feet of air per minute. Oil used is legal test and up to the standard. Rules are posted and the company keeps stretchers and blankets on hand at the mine as required by law. Three inspections were made of the mine during the year and three certificates issued to the company.

C. O. SMITH, Supt.

M. W. HYENE, Mine Boss.

No. 372. *Hensley Mine No. 2*.—This is a new mine which is located on a branch of the N. & W. R. R., 1-2 mile above Marytown. Coal mined is the Pocahontas Thin vein, or Tug River Smokeless, which varies in thickness from 3 feet 6 inches to 3 feet 8 inches. The mine is developed on the single and double entry system with 50 foot pillars between entries and air courses and rooms driven 50 feet from center to center and 18 feet wide. The roof and drainage are good. Explosive gases are not found in this mine. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 60 feet regularly. Ventilation is produced by a furnace which gives 11,500 cubic feet of air per minute. The oil used is legal test and is up to the standard. Rules are posted at the mine and stretchers and blankets are kept on hand at the mine as required by law. One inspection was made of the mine during the year and certificate issued.

C. O. SMITH, Supt.

J. R. WHITE, Mine Boss.

MOHAWK COAL CO.

No. 373. *Mohawk Mine*.—This is a new mine which is located on the main line of the N. & W. R. R., about 1-2 mile above Wyoming. Coal mined is Big Eagle, which averages in thickness from 4 to 5 feet. This mine will be developed on the single and double entry system. On my visit to this place the entries were driven to the distance of 300 feet. The mine was in good condition. Oil used is legal test. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. One inspection was made of the mine during the year and one certificate issued to the company.

C. BOTSFORD, Supt.

W. M. PEARYMAN, Mine Boss.

WELCH COAL CO.

No. 373A. *Welch Mine*.—This mine is located on a branch of the N. & W. R. R., one mile below Welch. The coal operated is the Pocahontas Thin vein, or Tug River Smokeless, which averages in thickness 3 feet 4 inches. This mine will be developed on the single and double entry system with 40 foot pillars between rooms and 60 foot pillars between entries and air course. This company made their first shipment July 5th, 1903. One inspection was made during the year of the mine and one certificate issued to the company.

CHAS. DEVENEY, Supt.

D. EVANS, Mine Boss.

IMO COAL CO.

No. 373B. *Imo Mine*.—This mine is located on a branch of the N. & W. R. R., two miles below Welch. The coal mined is the Pocahontas Thin vein, or Tug River Smokeless. They are now grading trail track and making preparations to build a tippie. This company has about twenty houses built and are pushing the work to get the mines in shape to ship coal this year.

W. B. McCLAREN, Supt.

ZENITH COAL & COKE CO.

No. 373C. *Zenith Mine*.—This mine is located on a branch of the N. & W. R. R., 1-4 mile below Burk's Gardens. The coal mined is Pocahontas Smokeless, which averages in thickness 4 1-2 feet. This will be a large mine. The company expect to get exerything in shape to ship coal the first of the year. There was one inspection made of this mine during the year and one certificate issued to the company.

JAMES BUCHANNON, Supt.

JNO. DAUGHERTY, Mine Boss.

McCLAREN COAL CO.

No. 373D. *McClaren Mine*.—This mine is located on a branch of the N. & W. R. R., at Cub Branch The coal operated is the Pocahontas Thin vein, or Tug River Smokeless. This company is grading trail track, erecting a tippie and houses, and making preparations to get the mine in shape by the first of the year.

J. B. McCLAREN, Supt.

PAGE COAL & COKE CO.

No. 373E. *Page Mine*.—This mine is located on a branch of the N. & W.

R. R., 9 miles above Gray. The coal mined is the Pocahontas Smokeless, which averages in thickness 7 feet. This is a large company, starting in with two hundred and fifty thousand dollars capital.

W. PAGE, Supt.

MIDDLE STATES COAL & COKE CO.

No. 373F. *W. G. Shaft Mine*.—This mine is located on the main line of the N. & W. R. R., two miles above Welsh. This mine is being sunken to Pocahontas No. 3 and No. 4 vein, there being one hundred and thirty feet before they strike the first seam. In sinking they have considerable trouble with water which makes the work very slow. After the main shaft is sunk they will start on the air shaft. This will be a large plant, as they intend making all improvements first class. Two inspections were made of the shaft during the year and one certificate issued to the company.

GEO. MARTIN, Supt.

GEO. MARTIN, Mine Boss.

HELENA COAL CO.

No. 373G. *Helena Mine*.—This mine is located on the main line of the N. & W. R. R., at Davy. Coal mined is the Pocahontas Thin vein, or Tug River Smokeless, which averages in thickness 3 feet and 4 inches. This company will be ready to ship coal by November the first.

H. HECHER, Supt.

H. HECHER, Mine Boss.

MERCER COUNTY.

MILL CREEK COAL & COKE CO.

No. 374. *Mill Creek Mine*.—This mine is located on a branch of the N. & W. R. R., on Mill Creek one mile from Coopers. The coal mined is the Pocahontas Smokeless, which varies in thickness from 7 to 10 feet. This mine is developed on the double entry system with 65 foot pillars between entries and rooms are driven 65 feet from center to center and 21 feet wide. The roof is good, as the top coal, which is 2 feet thick and 1 inch of sulphur band, is left up, and the mine is properly timbered. Drainage is fair. Explosive gases are not found in this mine. Roadways are free from loose slate. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 60 and 100 feet regularly, and mine doors and stoppings were found in good repair. Ventilation is produced by a 16-foot exhaust fan which produces 35,500 cubic feet of air per minute. This is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in this mine is legal test and up to the standard. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. This is a two hundred oven plant. There were three inspections made of the mine during the year and three certificates issued to the company.

THOS. COOPER, Supt.

WM. PETITT, Mine Boss.

No. 375. *West Side Mine*.—This mine is located on a branch of the N. & W. R. R., about 1 1-2 miles from the town of Cooper. The coal mined is the Pocahontas Smokeless, which averages in thickness from 7 to 8 feet.

This is part of the old Pocahontas mine, about four hundred acres have been left back on account of water. The Mill Creek Company secured this tract by lease and have started to drain it out. They started on the outside with a drain of 15 feet and will still continue their ditch on the inside until drained. Three inspections were made of the mine during the year and three certificates issued to the company.

THOS. COOPER, Supt.

WM. PENTT, Mine Boss.

COALDALE COAL & COKE CO.

No. 376. *Coaldale Mine*.—This mine is located on the main line of the N. & W. R. R., at the head of Elkhorn river at Coaldale. The Pocahontas Smokeless coal is operated, which is 7 to 10 feet thick at this place. This mine is developed on the double entry system. Pillars are 65 and 100 feet in thickness between entries, and rooms are driven 60 feet from center to center and 21 feet wide. The roof is good, there being 18 inches of top coal and 3-4 inch of sulphur. The mine is properly timbered. Drainage is also good. No explosive gases are found in the mine. The roadways are free from loose slate and there is room along the side of the haulways. The second opening is clear and comes up to the requirements of law. Cross-cuts are driven 100 feet apart. Mine doors and stoppings are in good repair. The ventilation is produced by a 16-foot fan which furnishes sufficient air and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in this mine is legal test and up to the standard. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. This is a one hundred and two oven plant. Three inspections were made of the mine during the year and two certificates issued to the company.

THOS. COOPER, Supt.

THOS. WILLIAMS, Mine Boss.

BUCKEYE COAL & COKE CO.

No. 377. *Buckeye Mine*.—This mine is located on a branch of the N. & W. R. R., on East Fork of Simmons Creek, and has two openings, it being 1 1-2 miles from Simmons. The coal mined is the Pocahontas Smokeless and varies in thickness from 5 feet to 5 feet and 7 inches. This mine is developed on the single and double entry system with 80 foot pillars between entries and rooms driven 65 feet from center to center and 21 feet wide. The roof is not good. Drainage is fair. Explosive gases are not found in this mine. Roadways are clear and free from loose slate and there is sufficient room along the haulways. Cross-cuts are driven 60 and 100 feet regularly. The second opening is clear and comes up to the requirements of law. Mine doors and stoppings are in good repair. Ventilation is produced by a 12-foot exhaust fan which furnishes 47,964 cubic feet of air per minute. This is sufficient air and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine is legal test and up to the standard. Rules are posted and the company keeps on hand at the mine stretchers and blankets as required by law. Three inspections were made of this mine during the year and three certificates issued to the company.

JOHN HEWITT, Supt.

THOS. GENT, Mine Boss.

CASWELL CREEK COAL & COKE CO.

No. 378. *Elkhorn Mine*.—This mine is located on a branch of the N. & W. R. R., on Simmons Creek, 1 1-2 miles from Simmons. The name of the coal mined is Pocahontas Smokeless, which averages in thickness 7 feet. This mine is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are 80 feet apart, driven regularly. Mine doors and stoppings are in good repair. The ventilation is produced by a 16-foot fan which furnishes 57,876 cubic feet of air per minute. This is sufficient air and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. Rules are posted and the company keeps on hand at the mine the necessary stretchers and blankets as required by law. About 75 per cent of the coal is mined by air punching machines. There were three inspections made of the mine during the year and three certificates issued to the company.

W. POWELL, Supt.

THOS. GRAZEAL, Mine Boss.

No. 379. *Hunlock Mine*.—This mine is located on a branch of the N. & W. R. R., on Simmons Creek about 2 miles from Simmons. The coal operated is the Pocahontas Smokeless, which varies in thickness from 7 to 9 feet at this place, and it is developed on the double entry system with 80 foot pillars between entries, and rooms are driven 60 feet from center to center and 21 feet wide. The roof is good. They mine 7 feet of coal and leave up 2 feet and 1 inch of sulphur band, and the mine is properly timbered. Drainage is good. No explosive gases are found in this mine. Roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and meets the requirements of the law. Cross-cuts are driven 100 feet regularly, and mine doors and stoppings are in good repair. Ventilation is produced by a 16-foot exhaust fan, which gives 42,000 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. Rules are posted at the mine and the company keeps on hand stretchers and blankets as required by law. This is a two hundred and thirty one oven plant. There were three inspections made of the mine during the year and three certificates issued to the company.

THOS. GRAZEAL, Supt.

GEO. SMITH, Mine Boss.

BOOTH-BOWEN COAL & COKE CO.

No. 380. *Reliance Mine*.—This mine is located on a branch of the N. & W. R. R., on Simmons Creek about two miles from Simmons. The coal mined is the Pocahontas Smokeless, which varies in thickness 7 to 9 feet. This mine is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21

feet wide Drainage is good. Explosive gases are not found in this mine. The roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 70 and 100 feet regularly, and mine doors and stoppings are in good repair. Ventilation is produced by a 20-foot exhaust fan which furnishes 73,500 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. Rules are posted at the mine and the company keeps on hand stretchers and blankets as required by law. This is a two hundred oven plant. Three inspections were made of the mine during the year and two certificates issued to the company.

HARRY BOWEN, Supt.

JAS. MITCHELL, Mine Boss.

LOUISVILLE COAL & COKE CO.

No. 381. *Louisville Mine.*—This mine is located on a branch of the N. & W. R. R., on West Flipping Creek, 4 miles from Bramwell. The coal mined is the Pocahontas Smokeless, which varies in thickness from 4 feet to 4 feet 8 inches. This mine is developed on the double entry system with 60 foot pillars between entries, and rooms driven 60 feet from center to center and 20 feet wide. The roof is good and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and comes up to the requirements. Cross-cuts are driven 100 feet regularly, and mine doors and stoppings are in good repair. This mine is ventilated by two exhaust fans, one 12 feet and the other 6 feet. No. 1 drift 42,500 cubic feet of air per minute and No. 2 51,624 cubic feet per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found to be in satisfactory condition. Oil used is legal test and up to the requirement. Rules are posted and this company keeps on hand at the mine stretchers and blankets as required by law. They are equipped at this mine with electricity and air. This is a one hundred and twenty-five oven plant, ovens being charged by electric larries. Three inspections were made of this mine during the year and three certificates were issued to the company.

J. COLLINS, Supt.

HARRY WOOD, Mine Boss.

GOODWILL COAL & COKE CO.

No. 382. *Goodwill Mine.*—This mine is located on a branch of the N. & W. R. R., on Flipping Creek, 4 miles from Bramwell. The coal mined is the Pocahontas Smokeless, which varies in thickness from 4 to 4 1-2 feet. This mine is developed on the double entry system with 62 feet pillars between entries, and rooms driven 50 feet from center to center and 18 feet wide. The roof is not good and gives them considerable trouble. The mine is properly timbered. Drainage is fair. No explosive gases are found in this mine. Roadways are free from loose slate. The second opening is clear and comes up to the requirements. Cross-cuts are driven

50 and 80 feet regularly. Ventilation is produced by a 14-foot exhaust fan, which furnishes sufficient air and it is properly distributed throughout the mine, No. 1 drift receiving 53,000 cubic feet per minute and No. 2 16,400 cubic feet per minute. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. Rules are posted at the mine and the company keeps on hand stretchers and blankets as required by law. This is an eighty oven plant. They have just finished putting in Ingersoll-Sargent air compressors. There were three inspections made during the year of this mine and three certificates issued to the company.

PHILLIP GOODWILL, Supt.

R. J. EARLY, Mine Boss.

AMERICAN COAL & COKE CO.

No. 383. *Pinnacle Mine*.—This mine is located on a branch of the N. & W. R. R., on McComas Creek about six miles from Bramwell. The Pocahontas Smokeless seam is operated, which varies in thickness from 4 feet to 4 feet 7 inches. It is developed on the double entry system with 75 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good, the draw slate being taken down on main and cross entries, and mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements. Cross-cuts are driven 50 and 100 feet regularly. Mine doors and stoppings are in good repair, and ventilation is produced by two 16-foot fans which furnish North drift 46,200 and South drift 46,200 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. The oil used for illuminating purposes in the mine is legal test and up to the standard. Rules are posted at the mine and the company keeps stretchers and blankets on hand at the mine as required by law. Three inspections were made of this mine during the year and three certificates issued to the company, and all suggestions offered have been adopted. This is a plant of two hundred ovens.

CALVIN SHOCKEY, Supt.

J. L. DEWEESE, Mine Boss.

No. 384. *Crane Creek Mine No. 1*.—This mine is located on a branch of the N. & W. R. R., on Crane Creek about 8 miles north of Bramwell. The coal mined is the Pocahontas Smokeless, which varies in thickness at this place from 4 1-2 to 5 feet. The mine is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate. The second opening is clear and comes up to the requirements. Cross-cuts are driven 70 and 100 feet regularly, and mine doors and stoppings are in good repair. The ventilation is produced by a 16 foot exhaust fan which gives 39,000 cubic feet of air per minute, which is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil is legal test and up

to the standard. Rules are posted at the mine and the company keeps on hand stretchers and blankets as required by law. They are putting in an electric plant, have built eighty ovens and have now under construction one hundred more. These improvements have been made within the past year. Three inspections were made of the mine during the year and three certificates issued to the company.

CALVIN SHOCKEY, Supt.

J. P. JOHNSON, Mine Boss.

No. 385. *Crane Creek Mine No. 2.*—This mine is located on a branch of the N. & W. R. R., on Crane Creek 7 miles from Bramwell. The coal mined is the Pocahontas Smokeless, which varies in thickness from $\frac{1}{4}$ to 4 1-2 feet. It is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and comes up to the requirements of law. Cross-cuts are 80 feet apart, regularly driven. Mine doors and stoppings are in good condition. Ventilation is produced by a furnace which furnishes 10,500 cubic feet of air per minute. This is sufficient air and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. Rules are posted as required by law and stretchers and blankets are kept on hand at the mine. There were three inspections made of the mine during the year and three certificates issued to the company.

CALVIN SHOCKEY, Supt.

B. L. CORDILL, Mine Boss.

SAGAMORE COAL & COKE CO.

No. 386. *Sagamore Mine.*—This mine is located on a branch of the N. & W. R. R., on Crane Creek about 8 miles from Bramwell. The coal mined is the Pocahontas Smokeless, which varies in thickness from 4 to 4 1-2 feet. This mine is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and mine is properly timbered. Drainage is fair. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and comes up to the requirement of the law. Cross-cuts are driven 70 and 100 feet regularly, and mine doors and stoppings are in good repair. Ventilation is produced by two fans, 10 and 4 feet, which furnish 39,374 cubic feet of air per minute. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted and this company keeps stretchers and blankets on hand at the mine as required by law. This company has erected a brick power and boiler house, is equipped with electricity for haulage, built one hundred and nine ovens and has excavated for one hundred and fifty more. They have also erected a new tipple during the past year. There were three inspections made of the mine during the year and three certificates issued to the company.

S. M. BUCK, Supt.

T. C. DOOLEY, Mine Boss.

CRYSTAL COAL & COKE CO.

No. 387. *Crystal Mine*.—This mine is located on a branch of the N. & W. R. R., on Cranes Creek 7 miles from Bramwell. The coal mined is the Pocahontas Smokeless. This mine is developed on the double entry system with 80 foot pillars between entries and rooms driven 65 feet from center to center and 21 feet wide. The roof is good and the mine properly timbered. Drainage is good. Explosive gases are not found in this mine. The roadways are free from loose slate and there is a 4 foot space along the haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 50 and 100 feet regularly. The mine doors and stoppings are in good repair. Ventilation is produced by furnace which gives 21,000 cubic feet of air per minute which is properly distributed throughout the mine. Oil used in this mine is legal test and up to the standard. Rules are posted at the mine and the company keeps on hand stretchers and blankets as required by law. This company has built one hundred new ovens, a new tippie within the past year and are now erecting a power house and putting in electric plant for haulage. Three inspections were made of this mine during the year and three certificates issued to the company.

L. M. BUFORD, Supt.

HENRY REED, Mine Boss.

THOMAS COAL & COKE CO.

No. 388. *Thomas Mine*.—This mine is located on a branch of the N. & W. R. R., on McComas Creek, about 9 miles from Bramwell. The coal operated is the Pocahontas Smokeless, which varies in thickness from 4 feet to 4 feet 7 inches. The mine is developed on the single and double entry system with 75 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good, as the draw slate is taken down on all entries, and the mine is properly timbered. drainage is good. Explosive gases are not found in this mine. The roadways are free from loose slate and plenty of room along haulways. The second opening comes up to the requirements of the law. Cross-cuts are driven 75 and 100 feet regularly, and mine doors and stoppings are in good repair. Ventilation is produced by a 12-foot fan which furnishes 32,400 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a good condition. Oil used in the mine is legal test and up to the standard requirement. Rules are posted, and stretchers and blankets kept on hand at the mine as required by law. They have now under construction at this place one hundred new ovens and also a new tippie. Three inspections were made of this mine during the year and three certificates issued to the company.

W. H. PRITCHARD, Supt.

G. W. HARMAN, Mine Boss.

YUCON COAL CO.

No. 389. *Yucan Mine*.—This mine is located near the county road that leads from Bramwell to Goodville and is two miles from Bramwell. The coal averages in thickness from 4 to 7 feet, and is the Pocahontas Smokeless which is operated. They work about three men on the inside and two

on the outside, that is, they are teamsters who haul the coal to Simmons. This colliery supplies Simmons and Bramwell with coal and the rest is shipped to market. One inspection was made of this mine during the year and one certificate issued to the company.

MR. LEE, Supt.

MR. LEE, Mine Boss.

MINGO COUNTY.

PEARL COAL MINING CO.

No. 390. *Camp Branch Mine*.—This mine is located on a branch line of the N. & W. R. R., on Camp Branch, 1-4 of a mile below Dingess. The coal mined is Gas coal, which averages in thickness from 4 to 4 1-2 feet. This mine is developed on the double entry system with 60 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is not good. Explosive gases are not found in this mine. Roadways are free from loose slate, and the second opening is clear and comes up to the requirements. Cross-cuts are driven 60 feet apart, regularly, and mine doors and stoppings are in good repair. The ventilation is produced by a furnace which produces 6,740 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All the mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and is up to the standard. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. Four inspections were made of this mine during the year and certificates issued to the company. All suggestions offered have been adopted.

JAS. BOOTHE, Supt.

A. MITCHELL, Mine Boss.

No. 391. *Freeport Mine*.—This mine is located on a branch of the N. & W. R. R., on Twelve-pole Creek, 2 miles above Dingess. It is the Gas seam which is operated, and is 7 feet thick. They mine five feet of this seam and leave up the top coal, as the other two feet contain slate and bone. This mine is developed on the double entry system with 40 foot pillars between entries and rooms driven 40 feet from center to center and 15 feet wide. The roof gives considerable trouble, as the coal and slate have to be kept dressed down until they strike the main top, and the mine is properly timbered. Drainage is fair. Explosive gases are not found in this mine. Roadways are free from loose slate. Second opening is clear and comes up to the requirements. Cross-cuts are driven 60 feet regularly, and mine doors and stoppings are in good repair. Ventilation is produced by furnace which gives 5,000 cubic feet of air per minute, which is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in good repair. Oil used in this mine is legal test and up to the standard. Rules are posted and the company keeps on hand at the mine stretchers and blankets as required by law. Incline is 200 feet long. Two inspections were made of this mine during the year and two certificates issued to

the company, and all suggestions offered were adopted. This mine has been idle for the past six months there being no sale for coal.

JAS. BOOTH, Supt.

WM. KITCHEN, Mine Boss.

No. 392. *Olympia Mine*.—This mine is located on a branch of the N. & W. R. R., on Twelve-pole Creek, two miles from Dingess. This mine has not been working for the past year. Two inspections were made of the mine during the year and two certificates issued to the company.

JAS. BOOTH, Supt.

WM. DIALS, Mine Boss.

No. 393. *Pearl Mine*.—This mine is located on the main line of the N. & W. R. R., on Twelve-pole Creek, a quarter of a mile below Dingess. The Gas coal is mined, which varies in thickness from 3 feet 7 inches to 5 feet 7 inches. This mine is developed on the double entry system with 50 foot pillars between entries and rooms driven 50 feet from center to center and 15 feet wide. The roof is good and the mine is properly timbered. Drainage is good, except on main entry. Explosive gases are not found in this mine. Roadways are free from loose slate. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 50 feet regularly, and mine doors and stoppings are in good repair. Ventilation is produced by an 8-foot exhaust fan which gives 18,000 cubic feet of air per minute. This is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in this mine is legal test and up to the standard. Rules are posted and stretchers and blankets kept on hand at the mine as required by law. Two inspections were made of this mine during the year and two certificates issued to the company. This mine is almost worked out and will not last another year unless other improvements are made.

JAS. BOOTH, Supt.

WM. KITCHENS, Mine Boss.

No. 394. *Alma Mine*.—This mine is located on a branch of the N. & W. R. R., on Tug River, 1-2 mile from Hatfield. The coal operated is known as the Thacker, which averages 4 feet 8 inches in thickness. It is developed on the double entry system with 60 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is fair. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along all haulways. The second opening is clear and meets the requirements of the law. Cross-cuts are driven 80 feet regularly, and mine doors and stoppings are in good repair. Ventilation is produced by furnace which gives 18,000 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found to be in a satisfactory condition. Oil used for illuminating purposes in the mine is legal test and up to the standard. Rules are posted and the company keep on hand at the mine stretchers and blankets as required by law. The incline at this mine is 300 feet long, over which the coal is lowered to the tippie. Four inspections were made of the mine during the year and four certificates issued to the company. All suggestions were adopted.

JNO. WARDEN, Supt.

WM. CARAWAY, Mine Boss.

RED JACKET COAL & COKE CO.

No. 395. *Logan Mine.*—This mine is located on a branch of the N. & W. R. R., on Matewan Creek, 1 1-2 miles from Matewan. The Thacker coal is mined here, and averages 4 1-2 feet in thickness. It is developed on the single and double entry system with 90 foot pillars between air course and main entry and rooms are driven 60 to 130 feet from center to center, long wall system. The roof is good and mine properly timbered. Drainage is good. There are no explosive gases in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements. Cross-cuts are driven 60 and 100 feet regularly, and mine doors and stoppings are in good repair. Ventilation is produced by a 15 foot fan, which furnishes 51,000 cubic feet of air per minute. This is properly distributed throughout the mine and is sufficient. All mechanical appliances in use in and about the mine were found to be in a satisfactory condition. Oil used in and about the mine is legal test and up to the standard. Rules are posted at the mine, and the company keep on hand the necessary stretchers and blankets as required by law. There is in use at this mine two 7-ton Jeffrey electric motors to pull coal out of the mine, and from there it is taken to the tippie by electric conveyors. Four inspections were made of this mine during the year, four certificates issued and all suggestions were adopted.

HENRY BROOKS, Supt.

R. D. BALDWIN, Mine Boss.

No. 396. *Rutherford Mine.*—This mine is located on a branch of the N. & W. R. R., on Rutherford Creek 1-2 mile from Thacker. The Thacker seam of coal is operated, which varies in thickness from 4 feet to 4 feet 9 inches. This mine is developed on the double entry system with 70 foot pillars between entries, and rooms are driven 50 feet from center to center and 18 feet wide. The roof is good, as they shoot down 12 inches of slate on entries and prop in the rooms. The mine is properly timbered and drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and meets the requirements of the law. Cross-cuts are driven 80 feet apart regularly, and mine doors and stoppings are in good repair. Ventilation is produced by furnace which gives 13,774 cubic feet of air per minute. This is sufficient and is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in this mine is legal test and up to the standard. Rules are posted and stretchers and blankets kept on hand at the mine as required by law. The incline at this place is 630 feet long over which the coal is lowered to the tippie. Four inspections were made of this mine during the year, four certificates issued and all suggestions offered were adopted.

HENRY BROOKS, Supt.

R. D. BALDWIN, Mine Boss.

No. 397. *Maritime Mine.*—This mine is located on a branch of the N. & W. R. R., on Thacker Creek 1-2 mile from Thacker. The coal operated at this place is the Thacker seam, which varies in thickness from 3 1-2 to 4 feet. This mine is developed on the panel system, 350 foot pillars

between entries, rooms driven 50 feet from center to center and 18 feet wide. The roof is good, as they shoot down 12 inches of slate on entries and prop in the rooms. The mine is properly timbered and drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along the haulways. The second opening is clear and comes up to the requirements of law. Cross-cuts are driven 80 feet regularly. Mine doors and stoppings are in good repair. Ventilation is produced by furnace which gives 18,476 cubic feet of air per minute, which is properly distributed throughout the mine and is sufficient. All mechanical appliances in and about the mine were found in satisfactory condition. Oil used in the mine is legal test and up to the required standard. Rules are posted and there are kept on hand at the mine stretchers and blankets as required by law. There were three inspections made of this mine during the year, three certificates issued and all suggestions offered were adopted. There is in use one 7-ton Jeffrey electric motor which hauls the coal out of the mine. The incline is 1,200 feet over which the coal is lowered to the tippie.

S. C. LAMBERT, Supt.

WM. LAMBERT, Mine Boss.

No. 398. *Red Jacket Mine*.—This mine is located on a branch of the N. & W. R. R., on Matewan Creek, two miles from Matewan. The Thacker seam of coal is operated, which is 4 1-2 feet in thickness. The mine is developed on the single and double entry system, with 70-foot pillars between air course and main entry, rooms driven 60 to 100 feet from center to center, long wall system. The roof is good and the mine properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of law. Cross-cuts are driven 60 and 100 feet regularly. Mine doors and stoppings are in good repair, and ventilation is produced by a 16-foot exhaust fan and a furnace, which gives 39,600 cubic feet of air per minute. This is properly distributed and is sufficient. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. This company keeps at the mine stretchers and blankets and rules are posted as required by law. The company has in use two 7 ton Jeffrey electric motors to pull the coal out of the mine. The coal is then taken to the tippie by electric conveyors. Three inspections were made of this mine during the year, three certificates issued to the company and all suggestions offered have been adopted.

HENRY BROOKS, Supt.

THOS. PUGH, Mine Boss.

No. 399. *Lick Fork Mine*.—This mine is located on a branch of the N. & W. R. R., on Lick Fork two miles from Thacker. The mine is developed on the double entry system, with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and mine is properly timbered. Coal averages 6 1-2 feet in thickness. Drainage is good. No explosive gases are found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and up to the requirements. Cross-cuts are driven 80 feet apart regularly, and mine doors and

stoppings are in good repair. Ventilation is produced by furnace which gives 21,440 cubic feet of air per minute, which is properly distributed throughout the mine and is sufficient. All mechanical appliances in use in and about the mine were found in satisfactory condition. Oil used is legal test and up to the standard. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. The incline at this place is 1,025 feet long over which the coal is lowered to the tippie. Three inspections were made of this mine, three certificates issued and all suggestions offered were adopted.

S. C. LAMBERT, Supt.

W. R. WILBUR, Mine Boss.

No. 400. *Grapevine Mine*.—This mine is located on the main line of the N. & W. R. R., on Tug river, 2 miles from Thacker. The Thacker seam of coal is operated, which varies in thickness from 6 to 11 feet here. There are two seams of slate running through this coal from 6 to 8 inches thick. On the west side they mine 6 feet 6 inches, and leave the slate and bottom coal; on the east side they mine it all. This is the thickest coal in the Thacker field. The mine is developed on the double entry system with 80 foot pillars between entries, rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine properly timbered. Explosive gases are not found in this mine. Roadways are free from slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements. Cross-cuts are driven 80 feet apart regularly. Mine doors and stoppings are in good repair. Ventilation is produced by furnace which furnishes 26,717 cubic feet of air per minute, which is properly distributed throughout the mine and is sufficient. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes in the mine is legal test and up to the standard. Rules are posted and stretchers and blankets are kept on hand at the mine. The incline is 1,200 feet over which the coal is lowered to the tippie. Three inspections were made of this mine during the year, three certificates issued and all suggestions offered were adopted.

S. C. LAMBERT, Supt.

FLOYD GOLDEN, Mine Boss.

THACKER COAL & COKE CO.

No. 401. *Thacker Mine No. 1*.—This mine is located on a branch of the N. & W. R. R., on Thacker Creek, 1 mile from Thacker. The Thacker seam of coal is mined, which averages 8 feet in thickness here. The mine is developed on the double entry system with 60 foot pillars between entries, rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of law. Cross-cuts are driven 80 feet regularly. Mine doors and stoppings are in good repair. Ventilation is produced by furnace which gives 47,000 cubic feet of air per minute. This is properly distributed throughout the mine and is sufficient air. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in the mine for illumi-

nating purposes is legal test and up to the standard. Rules are posted at the mine and the company keep on hand stretchers and blankets as required by law. There is in use at this mine 1 1-2 miles of tail rope which pulls the coal from the inside of the mine. The incline is 1,100 feet over which the coal is lowered to the tippie. Three inspections were made of this mine during the year, three certificates issued to the company and all suggestions offered have been adopted.

T. E. HOUSTON, Supt.

WM. ADAMS, Mine Boss.

No. 402. *Thacker Mine No. 2.*—This mine is located on a branch of the N. & W. R. R., on Thacker Creek, a mile from Thacker. The Thacker seam of coal is operated, which averages 8 feet in thickness at this place. The mine is developed on the double entry system with 60 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good and the mine is properly timbered. Drainage is good. No explosive gases are found in this mine. Roadways are free from loose slate and there is sufficient room along all haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 80 feet regularly. Mine doors and stoppings are in good repair. Ventilation is produced by a furnace which gives 23,000 cubic feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. No. 1 and No. 2 mines are connected and a large portion of the coal from No. 1 mine will be brought to the No. 2 tippie. There were three inspections made of this mine during the year and three certificates issued to the company.

T. E. HOUSTON, Supt.

W. H. ADAMS, Mine Boss.

LYNN COAL & COKE CO.

No. 403. *Lynn Mine.*—This mine is located on the main line of the N. & W. R. R., on Tug river at Lynn. The Thacker seam of coal is operated, which varies in thickness from 4 to 5 feet at this place. Three feet of this coal is a fine quality of splint coal. The mine is developed on the double entry system with 55 foot pillars between entries, rooms driven 50 feet from center to center and 18 feet wide. The roof is good and they shoot down 2 feet of slate on entries and prop in the rooms. The mine is properly timbered, and drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of the law. Cross-cuts are driven 80 feet regularly. Mine doors and stoppings are in good repair. Ventilation is produced by a furnace which gives 14,660 cubic feet of air per minute. This is properly distributed throughout the mine and is sufficient air. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes in the mine is legal test and up to the standard. Rules are posted and blankets and stretchers are kept on hand at the mine. Three inspections

were made of this mine during the year, three certificates issued to the company and all suggestions offered were adopted.

JNO. WARDEB, Supt.

TILDEN FARNEY, Mine Boss.

GLENALUM COAL & COKE CO.

No. 404. *Glenalum Mine*.—This mine is located on a branch of the N. & W. R. R., on Glenalum Creek about 4 miles from Glenalum. The Thacker seam of coal is operated, which averages 8 feet in thickness at this place. This mine is developed on the double entry system with 80 foot pillars between entries and rooms driven 60 feet from center to center and 21 feet wide. The roof is good. There is draw slate from 1 to 3 inches thick which is taken down on entries and in rooms, and the mine is properly timbered. Drainage is fair. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements of law. Cross-cuts are 100 feet apart, driven regularly. Mine doors and stoppings are in good repair. Ventilation is produced by a 5 foot fan which produces 67,360 cubic feet of air per minute. This is properly distributed throughout the mine and is sufficient. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used is legal test and up to the standard. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. No pick miners are employed, as the coal is mined by Jeffrey electric cutting machines. There were three inspections made of this mine during the year, three certificates issued to the company and all suggestions offered were adopted.

CHAS. JONES, Supt.

HARRY TAYLOR, Mine Boss.

No. 405. *Glenalum Mine No. 2*.—This mine is located about 1 1-4 of a mile above No. 1 mine, and is opened on the Lo. Kittan. seam, which averages in thickness about 6 feet. There are four sets of entries opened at present and more will open from the outside later on. Tramway is graded around the mountain to a place opposite the No. 1 tippie where the coal will be conveyed by conveyors to No. 1 tippie. One inspection was made of this mine during the year and one certificate issued.

CHAS. JONES, Supt.

HARRY TAYLOR, Mine Boss.

NOLAN COAL CO.

No. 406. *Nolan Mine*.—This mine is located on the main line of the N. & W. R. R., on Coleman's Branch 3-4 mile below Nolan. The Thacker seam of coal is operated, which varies in thickness from 2 to 3 feet. The mine is developed on the double entry system with 55 foot pillars between entries, rooms driven 50 feet from center to center and 18 feet wide. The roof is good, as they shoot down 18 inches of slate on main and cross entries, and the mine is properly timbered. Explosive gases are not found in this mine. Drainage is fair. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements. Cross-cuts are driven 70 feet regularly. Mine doors and stoppings are in good repair. The ventilation is produced by a furnace which furnishes 13,000 cubic feet of

air per minute. This is properly distributed throughout the mine and is sufficient air. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in this mine is legal test and up to the standard. Rules are posted and the company keeps on hand stretchers and blankets as required by law. Little improvement has been made during the past year at this mine.

W. M. SMITH, Supt.

C. A. LOVERN, Mine Boss.

WAR EAGLE COAL CO.

No. 407. *War Eagle Mine*.—This mine is located on a branch of the N. & W. R. R., on Turkey Creek 2 3-4 miles above the town of War Eagle. The coal mined is the Lo. Kittan. which averages in thickness 5 feet 6 inches. They have in use conveyors, finely equipped tippie and prepare different sizes of coal. This mine will be developed on the double entry system and they intend to put in a large Capell fan in the near future. This company is also putting in air plant and intend to do most of their mining by machine. One inspection was made of this mine during the year and one certificate issued to the company.

A. MOORE, Supt.

HATFIELD COLLIERY CO.

No. 408. *Hatfield Mine*.—This mine is located on the main line of the N. & W. R. R., about one mile and a half from the town of Logan, and has two openings, the Upper and Lower Kittan. One averages 3 feet 3 inches; the Upper 4 1-2 feet. This mine is developed on the double entry system, with 60 foot pillars between entries, rooms driven 80 feet from center to center and 18 feet wide. The roof is good and the mine is properly timbered. Drainage is good. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. Cross-cuts are driven 70 feet regularly. Mine doors and stoppings are in good repair. Ventilation is produced by a furnace which gives 13,750 cubic feet of air per minute. This is properly distributed and is sufficient air. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used in this mine is legal test and up to the standard. Rules are posted and the company keeps on hand at the mine stretchers and blankets as required by law. The largest portion of coal mined at this mine is by Ingersoll punching machines. Three inspections were made of the mine during the year and three certificates issued to the company.

W. H. McCLAREN, Supt.

JAS. ARMSTRONG, Mine Boss.

JACKSON COAL CO.

No. 409. *Jackson Mine*.—This mine is located on the main line of the N. & W. R. R., one mile above Nolan. The name of the coal mined is Low. Kittan., which averages in thickness 3 to 4 1-2 feet. This mine is developed on the double entry system, with 50 foot pillars between entries, rooms driven 50 feet from center to center and 18 feet wide. The roof is good and the mine is properly timbered. Drainage is fair. Explosive gases are not found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is

clear and comes up to the requirements. Cross-cuts are driven 70 feet regularly. Mine doors and stoppings are in good repair. Ventilation is produced by a furnace which gives 16,363 cubic feet of air per minute. This is properly distributed throughout the mine and is sufficient air. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes in this mine is legal test and up to the standard. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. This company intends putting in an air plant, punching machines and other improvements are contemplated. Three inspections were made during the year and three certificates issued to the Company.

JOE MITCHELL, Supt.

L. H. JACKSON, Mine Boss.

MATE CREEK COAL CO.

No. 410. *Mate Creek Mine*.—This mine is located on a branch of the N. & W. R. R., at Matewan. The name of the coal operated is Low. Kittan., which averages in thickness 4 1-2 feet. The main entry at present is driven in 250 feet, and this is a fine little plant. They are pushing the work as fast as they can and expect to do fair shipment before the year is out. One inspection was made of this mine during the year and one certificate issued to the company.

JAS. BEAVERS, Supt.

WM. FARNEY, Mine Boss.

MARVIN COAL CO.

No. 411. *Marvin Mine*.—This mine is located on a branch of the N. & W. R. R., at Matewan. The name of coal mined is Low. Kittan., which averages in thickness 4 1-2 feet. The main entry at present is driven 250 feet, and it has just started to ship coal. This is a fine little plant. They are pushing the work as fast as they can and expect to do fair shipment before the year is out. This company has had more trouble in laying their track than any other company along the line, but have finally gotten it completed. One inspection was made during the year and one certificate issued to the company.

J. H. WILLIAMS, Supt.

J. H. WILLIAMS, Mine Boss.

PAPPOOSE COAL CO.

No. 412. *Pappoose Mine*.—This mine is located on a branch line of the N. & W. R. R., 2 1-2 miles above the town of War Eagle, and on Turkey Creek. The name of the coal mined is Low. Kittan., which averages in thickness 6 feet. On my last visit to this mine they had four openings driven in about 250 feet. The roof of this mine is good. They have just started to ship coal. On the tippie they have what is called the Moore's revolving dump. This is the best dump that has ever come under my inspection. Coal is lowered to the tippie by a 6 ton monitor, which seems to give satisfactory results. One inspection was made of this mine during the year and one certificate issued to the company.

A. MOORE, Supt.

WM. WILLIAMS, Mine Boss.

MARGARET COAL CO.

No. 413. *Margaret Mine*.—This mine is located on a branch of the N.

& W. R. R., on Turkey Creek 2 1-2 miles above the town of War Eagle. The coal mined is known as the Low. Kittan., which averages in thickness 5 feet 6 inches. They have in use conveyors, finely equipped tipples and prepare different sizes of coal. The mine will be developed on the double entry system. Most of the mining will be done by air machines. One inspection was made of the mine during the year and one certificate issued to the company.

GEO. COFFEE, Supt.

GEO. COFFEE, Mine Boss.

STAR COAL & COKE CO.

No. 414. *Star Mine*.—This mine is located on a branch line of the N. & W. R. R., 2 1-2 miles from the town of War Eagle on Turkey Creek. The name of the coal is Low. Kittan., which averages in thickness 6 feet. On my visit there they were erecting a tipples, also putting in a rope conveyor, which when completed, will be a fine tipples. Their openings are driven in about 250 feet. This mine will be developed on the single and double entry system. One inspection was made of the mine during the year and one certificate issued to the company.

GEO. COFFEE, Supt. and Mine Boss.

CEDAR COAL & COKE CO.

No. 415. *Cedar Mine*.—This mine is located on the main line of the N. & W. R. R., at Cedar. The coal mined is the Low. Kittan., which averages in thickness about 3 feet 3 inches. This mine is opened up on a small scale, averaging about one car per day. The mine is developed on the single entry system. One inspection was made during the year and one certificate issued to the company.

A. M. MITCHELL, Supt. and Mine Boss.

VULCAN COAL CO.

No. 416. *Vulcan Mine*.—This mine is located on the main line of the N. & W. R. R., at the town of Volcome. The mine is opened on the Kentucky side, and the coal averages in thickness 4 to 5 feet. They have in use at this mine bucket system, which was not giving good results. Since my inspection I understand they have overcome their difficulty and are now working satisfactorily. The tipples of this mine is on the West Virginia side. One inspection was made during the year of this mine and one certificate issued to the company.

A. D. RICE, Supt. and Mine Boss.

MERRIMAC COAL CO.

No. 417. *Merrimac Mine*.—This mine is located on the main line of the N. & W. R. R., at Merrimac. Coal mined is Low. Kittan., which averages in thickness at this place 3 feet 8 inches. This mine is developed on the single and double entry system. Rooms are driven 60 feet from center to center and 18 feet wide. The roof is good and mine is properly timbered. Drainage is good. No explosive gases are found in this mine. Roadways are free from loose slate and there is sufficient room along haulways. The second opening is clear and comes up to the requirements. Cross-cuts are 80 feet apart, driven regularly. Mine

doors and stoppings are in good repair. Ventilation is produced by a furnace which gives 15,000 cu. feet of air per minute. This is sufficient and it is properly distributed throughout the mine. All mechanical appliances in use in and about the mine were in a satisfactory condition. Oil used is legal test. Rules are posted and stretchers and blankets kept on hand at the mine as required by law. One inspection was made of this mine during the year and one certificate issued to the company.

W. J. McCLAREN, Supt.

C. C. VAUGHN, Mine Boss.

FIFTH DISTRICT.

OFFICE OF THE FIFTH DISTRICT MINE INSPECTOR.

ELM GROVE, W. VA., Sept. 5, 1903.

HON. JAMES W. PAUL,

Chief Mine Inspector,

Charleston, W. Va.

SIR:—I have the honor of submitting for your consideration my second annual, on the condition of the mines in the Fifth District and that part of the First District that is attached to the Fifth, for the year ending June 30th, 1903.

During the year two hundred and seventy visits were made of which two hundred and forty-four regular monthly reports were made, and twenty-six visits of which no reports were made.

The number of producing mines in this District has been increased during the year just closed by the opening of eleven new mines and the re-opening of five old mines that had been abandoned.

The past year has been marked by unusual activity in the coal and coke trade, especially coke. More than twelve hundred new ovens have been built or are under course of construction; four hundred and fifty have been completed, and two hundred and thirty-five have been put into blast.

The greatest activity has been displayed in Randolph and Preston Counties, two hundred and twenty having been built and put into blast in Randolph County, and three hundred and forty more are under course of construction. The building of four hundred more during the coming year is contemplated.

Preston County will in all likelihood become the leading coke producing County in this District in a few years. There having been built and under course of construction six hundred and forty new ovens, seventy old ovens that were out of blast have been put in blast. With the ovens which are now out of blast, the ones that are in blast and the new ovens that are built Preston County will have one thousand ovens.

Twenty-five new ovens are being built in Tucker County which County has heretofore been the leading coke producing County in this District with seven hundred and ten ovens.

During the year mechanical haulage has been installed at eight mines making a total of twenty-eight mines that are equipped with mechanical haulage. Fourteen of these having electric mine locomotives and fourteen having tail rope haulages.

Coal is now being mined in twenty-four mines in this District by machines, seven of which are using electric chain machines; thirteen are using compressed air machines of the puncher type, and four are using machines of both types. During the year mining machines have been installed in two mines and removed from one.

Four fans have been installed, four furnaces have been built, five air

shafts have been sunk and ten new openings made for the purpose of better ventilation.

There are now thirty-four mines in the District equipped with fans, twelve with furnaces, fifteen with fire baskets and fourteen use natural means for ventilation purposes.

The year just closed has been marked by an unusual demand for both coal and coke with good prices prevailing. A general advance in the rate paid for mining, averaging 15 per cent., in most instances unsolicited on the part of the employees. This shows a disposition on the part of the operators to share with their employees the increased earnings due to the increase in the selling price of coal.

The output of the District has been restricted fully 25 per cent. during the year owing to the inability of the railroads to furnish sufficient cars to keep the mines in continuous operation and to handle the output from the mines promptly.

The year closed with an amicable feeling between the employer and employe. Trusting that the coming year at the advanced rate of mining will witness a larger success in the coal trade than the one just past, and thanking you for your assistance rendered during the year, I remain,

Very truly yours,

JERRY WESTLAKE,

Mine Inspector, 5th District W. Va.

GENERAL SUMMARY OF THE FIFTH DISTRICT FOR THE
YEAR ENDING JUNE 30, 1903.

COUNTY.	No. of Mine Openings.		Total No. of Inspections Made.		No. of Written Reports Made.		EMPLOYES.								PRODUCTION.	
	No. of Mine Openings.	Total No. of Inspections Made.	No. of Written Reports Made.	Inside.				Outside.				Grand Total.	No. of Men Killed.	Coal, (Tons of 2,240 lbs).	Coke, (Tons of 2,000 lbs).	
				Pick Miners.	Machine Miners.	Mach. Runners and Helpers.	Laborers.	Total.	Laborers.	Coke Workers.	Total.					
Barbour.....	13	.....	26	161	225	54	182	622	133	11	144	766	3	525,924	20,991
Grant.....	3	.....	5	12	24	12	20	68	13	.....	13	81	3	28,489	.....
Mineral.....	12	.....	39	465	.....	.....	63	528	85	.....	85	613	1	514,582	.....
Preston.....	20	.....	56	407	297	73	158	935	97	39	136	1,071	3	574,741	34,627
Randolph.....	10	.....	15	293	40	8	77	418	57	60	117	535	..	388,487	120,38
Taylor.....	6	.....	18	249	25	5	81	360	84	.....	84	444	1	264,524	.....
Tucker.....	9	.....	32	725	53	12	354	1,144	89	253	342	1,486	8	1,078,997	284,122
Totals....	73	244	*191	2,312	664	164	935	4,075	558	363	921	4,996	19	3,375,744	460,127	

* Mr. Jerry Westlake, of the 5th District, also made 55 written reports of inspections made at the mines in Brooke, Hancock, Marshall and Ohio Counties. The mines in these counties being under his supervision.

FIFTH MINING DISTRICT.

JERRY WESTLAKE, INSPECTOR.

BARBOUR COUNTY.

JUNIOR COAL CO.

No. 418. *Junior Mine No. 1.*—This mine is located on the Tygart's Valley River, W. Va. C. & P. R. R., four miles south-east of Belington. It is a drift opening in the Freeport seam, and is developed on the double entry system, with fifty foot chain and 100 foot barrier pillars, rooms driven 40 feet from center to center and 20 feet wide. The roof is draw slate and is fairly good when properly timbered. Very little water is generated in this mine, and drainage is good throughout. The second opening comes up to the requirements and cross-cuts are driven regularly. Mine doors and stoppings are in fairly good repair. Ventilation is produced by a six foot exhaust fan, which is entirely too small to furnish the proper amount of air. The management has promised, however, to install a larger fan as soon as possible. A coking plant of 51 ovens, all of which are in blast, is in operation at this mine, 15 of these ovens having been built during the last year. The oil used for illuminating purposes comes up to the standard requirement. Rules are posted at the mine as required by law. All suggestions offered have been adopted. Three inspections were made of the mine during the year and three certificates issued to the company.

A. C. FINLEY, Supt.

H. C. HASKINS, Mine Boss.

PHILIPPI COAL MINING CO.

Nos. 419 & 420. *Meriden Mines Nos. 1 & 2.*—This mine is located at Meriden, two miles north of Philippi on the Belington branch of the B. & O. R. R., and the Tygart's Valley River. It is a drift opening in the upper Freeport, and the mine is developed on the double entry system with 50 foot chain pillars and 100 ft. barrier pillars. Rooms are driven 40 feet from center to center and driven 20 feet wide. The roof is hard gray slate which makes a splendid roof. The coal is worked to the rise and very little water is generated. Drainage is good throughout the mine. The second opening comes up to the requirements, and doors and stoppings were found in good repair. The oil used was found to be of good quality. Ventilation is produced by a twenty foot force fan which furnishes ample ventilation and it is properly distributed throughout the mine. Electric haulage and mining machines are used at this place, one 12 ton Jeffrey's mine motor, one ten ton General Electric, five Jeffrey's mining machines and one Morgan & Gardner being the equipment. The power is furnished by 185 H. P. McEwen engine belted to a 100 K. W. Jeffrey's generator, a 290 H. P. McEwen engine, direct connection with a 200 K. W. Thompson & Ryan generator, two 75 H. P. and one 150 H. P. Erie boilers. Rules are posted at the mine, and all suggestions offered have been adopted. Three inspections were made of the mine during the year and three certificates issued to the company.

L. J. SANDRIDGE, Supt.

WALTER MATHEWS, Mine Boss.

TYGART RIVER COAL CO.

No. 421. *Arden Mine*.—This mine is located on the Tygarts Valley River and on the Belington branch of the B. & O. R. R., 6 miles north of Philippi. It is a drift opening in the upper Freeport. Ventilation is produced by a 12 foot force fan, which furnishes plenty of air properly distributed throughout the mine. Cross-cuts are regularly driven, and mine doors and stoppings were found in fairly good repair. Very little water is generated and drainage is good throughout. All mechanical appliances in use in and about the mine were found in a satisfactory condition. The coal is mined at this place with punching mining machines of the Harrison type, six mining machines being in use. A very heavy grade is encountered at this place, a small pair of haulage engines being run by compressed air and located at the top of grade for hauling empty mine cars into the mine, the loads dropping out by gravity. A 150 H. P. Ingersol-Sergeant air compressor furnishes power for mining machines and hauling engines, two 150 H. P. Erie boilers being included in their power plant. A satisfactory grade of oil was found in use for illuminating purposes. Blankets and stretchers are kept on hand at the mine and rules are posted as required by law. All suggestions offered have been complied with. There were three inspections made of the mine during the year and three certificates issued to the company.

JNO. ROWLAND, Supt. and Mine Boss.

SOUTHERN COAL & TRANSPORTATION COMPANY.

No. 422. *Berryburg Mine*.—This mine is located at Berryburg, 7 miles west of Philippi, on the Berryburg branch of the B. & O. R. R. It is a drift opening in the Pittsburg, or No. 8. The mine is developed on the double entry system with 50 foot chain pillars and 100 foot barrier pillars. The roof is draw slate, full of slips and breaks, necessitating the leaving up from one to one and a half feet of coal in the rooms in order to hold the top. The coal at this mine is cut up with faults, being very hard and of a sulphurous nature, being scarcely able to get steel of sufficient hardness to stand drilling. Heretofore explosive gases have been found after cutting through these faults, but for the past year very little gas has been given off in this mine. There are three openings at this mine which are designated as South pit and West pit and main air way. Ventilation is produced by a 12 foot Capell exhaust fan, which furnishes an abundance of air if properly distributed. It was noticed there was an unusual amount of leakage of air through brattices, and while they had forty to fifty thousand cubic feet of air per minute at each pit entrance, at the face of working parts of the mine three-fourths of it had leaked through the brattices. It is my opinion the ventilation of this mine would be greatly improved by the construction of air bridges or overcasts at each cross heading, thereby doing away with trap doors on main haulage and making air splits at each cross heading. I have suggested this to the management and they have agreed to construct the overcasts. Both electric and compressed mining machines are used in this mine, having eight Jeffreys electric machines, six Sullivan and six Harrison compressed air machines of the puncher

type, one twenty ton and one 16 ton Jeffrey mine motors being used for hauling coal at this place. Their power plant is equipped with five 150 H. P. boilers, two 175 H. P. Ball engines belted to two 100 K. W. Jeffrey's generators and a 250 H. P. Ingersoll-Sargeant air compressor. Rules are posted and all suggestions offered have been adopted. Three inspections were made during the year and three certificates issued to the company.

L. W. SMITH, Supt.

JNO. McDONALD, Mine Boss.

FLOYD DILLON, Fire Boss.

LAUREL CREEK COAL CO.

No. 423. *Laurel Mine*.—This mine is located six miles north of Philippi on the Belington branch of the B. & O. R. R., and Tygarts Valley River. It is a drift opening in the Upper Freeport, and the mine is developed on the double entry system, with 50 foot pillars between entries and 75 foot barrier pillars. Rooms are driven forty feet from center to center and 20 feet wide. The roof is a splendid one of hard gray slate. Mine doors and brattices were found in good condition. Ventilation is produced by fire-basket which gives fairly good results and furnishes sufficient air for the number of men employed. A good quality of oil was found in use for illuminating purposes. The second opening comes up to the requirements of law. Very little water is generated in this mine and the drainage is good. Rules were posted and stretchers and blankets kept on hand at the mine. All suggestions offered have been adopted. Three inspections were made of the mine during the year and three certificates issued to the company.

W. S. BRYDON, Supt.

J. H. RITTER, Mine Boss.

CENTURY COAL CO.

No. 424. *Century Shaft Mine*.—This mine is located 18 miles south of Philippi on Century branch of the B. & O. R. R. It is a shaft opening in the Red Stone, and the coal is found at this place at a depth of 154 feet. The mine is developed on the tripple entry system on main headings and double entry system on cross headings with twelve-hundred foot panels. The chain pillars are 50 feet and barrier 100 feet. Rooms are driven 40 feet from center to center and 25 feet wide. The roof of this mine is a good one of hard gray slate. The over cast system is used throughout the mine, doing away with the use of trap doors. Ventilation is produced by a splendid reversible Capell fan installed in a brick fan house, and which furnishes an abundance of air throughout the mine. Electric power is used for both mining and hauling coal, there being in use thirteen electric mining machines, seven Morgan-Gardner and six Jeffrey's. One ten ton Jeffrey's mine locomotive, one thirteen ton Westinghouse. Their power-house equipment is as follows: 4 150 H. P. Erie boilers, 1 225 H. P. Ideal engine belted to one 150 K. W. Westinghouse generator, 1 175 H. P. Ball engine belted to 100 K. W. Westinghouse generator. A drainage heading 3,300 feet in length has been driven from bottom of shaft to out-crop, which furnishes the mine with natural drainage. Very little water is generated in this mine and drainage throughout is good. Explosive gases are found in small quantities in

some parts of the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Overcasts and stoppings were found in a first class condition, and oil used for illuminating purposes in the mine is legal test and up to the standard. Rules are posted and stretchers and blankets kept on hand at the mine as required by law. All suggestions offered have been adopted. Three inspections were made of the mine during the year and three certificates issued to the company.

J. C. WARD, Supt.

ED. WILLIAMS, Mine Boss.

A. B. MACMURDO, Fire Boss.

VALLEY COAL & COKE CO.

No. 425. *Valley Mine*.—This mine is located four miles north of Belington on the Belington Northern R. R., & Tygarts Valley River. It is a drift opening in the Middle Freeport seam, which averages six feet in thickness. The roof of this mine is hard draw slate, which in some parts of the mine makes a splendid roof, while in other parts of the mine it cuts badly by the air and makes a dangerous top. The mine is developed on the double entry system with 50 foot chain and 100 barrier pillars. Mine doors and stoppings were found in good repair. The experiment of constructing an under cast was tried in this mine with satisfactory results, the main heading going to the rise very fast where under cast was constructed, permitting it to be drained of water very easily. Ventilation is produced by a five foot exhaust fan which furnishes plenty of air throughout the mine. Drainage in all parts of the mine is good. Special rules are posted and blankets and stretchers kept on hand at the mine as required by law. All suggestions offered were adopted. Three inspections were made of the mine during the year and three certificates issued to the company

F. A. COLEMAN, Supt.

CHAS. CRONK, Mine Boss.

SMOKELESS COAL & COKING CO.

No. 426. *Lillian Mine*.—This mine is located at Lillian, four miles south of Philippi on the Belington branch of the B. & O. R. R., and Tygarts Valley River. It is a small drift operation in the middle Freeport, which at this place averages from 6 to 7 feet in height. The mine is developed on the double entry system with 30 foot chain pillars and 100 foot barrier pillars. Rooms are driven 45 feet from center to center and 20 feet wide. The roof of this mine is a hard gray slate which makes a splendid roof. Mine doors and stoppings were found in fairly good condition. Ventilation is produced by fire basket, which produces sufficient air for the number of men employed. Drainage in the north side of the mine is good, while the south side which is going to dip very rapidly, is bad. A fair quality of miner's oil was found in use in **this mine**. Rules were posted, and blankets and stretchers were kept on hand at the mine. All suggestions offered have been adopted. Three inspections were made of the mining during the year and three certificates issued to the company.

W. A. COX, Supt.

W. A. COX, Mine Boss.

PENNSYLVANIA COAL MINING CO.

No. 427. *Pennsylvania Mine*.—This mine is located 9 miles south of

Philippi on the Belington branch of the B. & O. R. R., and Tygarts Valley River. It is a drift opening in the middle Freeport, which varies in thickness from 7 to 8 feet at this place. The mine will be developed on the three entry system on main headings and double entry on cross headings. At the time of my last visit, July 23rd, the main headings were driven a distance of 400 feet. The work at this place has been greatly retarded owing to the inability to secure a switch from the railroad company. It is the intention of this company to construct 200 coke ovens at this place and to equip a modern mine. The coal will be lowered over an incline plane a distance of 1,000 feet to the tippie. There was one inspection made of this mine during the year.

HARRY WETZEL, Supt.

EDWARD PEARSON, Mine Boss.

CANDACE COAL & COKE CO.

No. 428. *Clemens Mine*.—This mine is located at Clemens, 11 miles south of Philippi on the Belington branch of the B. & O. R. R., and Tygarts Valley River. It is a small drift opening in the Middle Freeport, which at this place varies in thickness from 7 to 8 feet. The mine is developed on the double entry system with 40 foot chain pillars and 75 foot barrier pillars. The roof of this mine is sand-stone which makes a good roof. Ventilation is produced by fire basket which gives very fair results. Mine doors and stoppings were in good repair. The oil for illuminating purposes found to be of fair quality. The incline plane at this place is 400 feet in length over which the coal is lowered to the tippie. Special rules have been posted and all suggestions offered have been complied with. There were three inspections made of the mine during the year and three certificates issued to the company.

W. P. HEARST, Supt.

WM. KOOZER, Mine Boss.

GRANT COUNTY.

DAVIS COAL & COKE CO.

Nos. 429 & 430. *Henry Shaft Mines Nos. 22 & 33*.—This mine is located at Henry 41 miles S. W. of Piedmont on the North fork of the Potomac River and the W. Va. & C. & P. R. R. It is a shaft operation in the Freeport and Kittanning coal seams. The Freeport is found at 220 feet and the Kittanning at 420 feet. The mine is being developed on the double entry system, with 40 chain pillars and 150 feet barrier pillars. The roof of the Freeport is sand rock and draw slate, making a good roof where they have no draw slate, as the latter is hard to hold with timbers. The roof of the Kittanning seam is heavy draw slate which makes a bad roof. Fire damp, or explosive gas is generated in small quantities at the lower seam. Ventilation is produced by a 13 foot exhaust fan of the Capell type, which produces sufficient air properly distributed throughout the mine. Considerable water is generated in the upper Freeport vein, and drainage is fairly good in both seams. Mine doors and stoppings were found in good repair. The oil used for illuminating purposes was found to be mostly kerosene, but on taking the matter up with the management this evil was promptly remedied and on my last visit there I found a fair quality of oil being used. There are three sets of hoists

at this mine equipped with 500 H. P. hoisting engines. The two hoists at main shaft are equipped with direct connected engines and self-dumping cages. Two cleaning tables for cleaning the coal are in operation at this opening. This shaft is built in five compartments, 10 1-2 x 40 feet. The air shaft is built in three compartments with a geared hoist. The power plant is equipped with six 150 H. P. Erie boilers, one 150 K. W. Westinghouse generator, one 250 K. W. Pollock direct connected, and one 250 H. P. Ingersol-Sargent air compressor. Rules are posted at the mine, and blankets and stretchers are kept on hand as required by law. All suggestions offered have been adopted. There were four inspections made of this mine during the year and four certificates issued to the company.

JAS. BOYD, Supt.

ALEX. BAIRD, Mine Boss.

MARION COAL & COKE CO.

No. 431. *Barnum Mine.*—This mine is located twenty-five miles south-west of Piedmont on the North fork of the Potomac River and W. Va. C. R. R. It is a small drift operation in the Freeport, which varies in thickness from 3 to 4 feet, is badly cut up by faults and the coal is full of bone and slate, and it is very doubtful if it ever amounts to anything. The mine is being developed on the double entry system. Ventilation is produced by fire basket, which does not give very good results. Drainage is fairly good. One inspection was made of the mine during the year and one certificate issued to the company.

JNO. JOSE, Supt.

C. C. CHENOWETH, Mine Boss.

MINERAL COUNTY.

DAVIS COAL & COKE CO.

No. 432. *Mine No. 19.*—This mine is located at West Virginia Junction, two miles south-west of Piedmont on the North fork of the Potomac River and W. Va. C. & P. R. R. This is a drift operation in the Freeport seam, which has run but very little coal for the past year as they have been in the sand-stone fault. After driving their main heading and air course 1,600 feet in the sand rock, and their first right heading and air course 1,300 feet in the sand rock, and putting five test holes from the surface in advance of the face of the heading, have reached the conclusion that the coal at this place is entirely pinched out, consequently have started to rob the pillars preparatory to abandoning it. Ventilation is produced by a 12 foot Brazil force fan which furnishes good air throughout the mine. Drainage in all parts of the mine is good. All suggestions offered have been adopted. There were four inspections made of the mine during the year and four certificates issued to the company.

O. TIBBETS, Supt.

JOE TIBBETTS, Mine Boss.

No. 433. *Mine No. 18.*—This mine is located at Hampshire, on the North fork of the Potomac River and on the W. Va. C. & P. R. R., 2 miles south-west of Piedmont. It is a drift opening in the Freeport, which varies in thickness at this place from 5 to 5 1-2 feet. There have been no new developments in this mine for the past year, coal having been pinched out by the sand rock on all sides. The pillars are being robbed

preparatory to final abandonment. Ventilation is produced by a 12 foot force fan of the Brazil type, which gives excellent results. Drainage is not very good owing to surface breaks from pillaring. Rules are posted and the company keeps on hand stretchers and blankets as required by law. All suggestions offered have been adopted. Four inspections were made of the mine during the year and four certificates issued to the company.

O. TIBBETS, Supt.

JOE TIBBETS, Mine Boss.

No. 434. *Mine No. 8.*—This mine is located three miles S. W. of Piedmont, on the North fork of the Potomac River and W. Va. C. & P. R. R. There are two drift openings at this place, one in the Gas coal and one in the Big vein, no new work being advanced. Nearly all pillars have been drawn and both mines will soon be abandoned. Ventilation is by natural means which, owing to height of coal and numerous openings, is fairly good. Drainage is not good as there have been so many breaks made to surface from pillaring. The three incline planes at this place aggregate length of 3,800 feet over which the coal is lowered to the tippie. Oil used for illuminating purposes is found to be of good quality. Rules are posted at the mine and blankets and stretchers are kept on hand as required by law. All suggestions offered have been adopted. Three inspections were made of this mine during the year and three certificates issued to the company.

O. TIBBETS, Supt.

J. B. RANKIN, Mine Boss

No. 435. *Mine No. 20.*—This mine is located at Blaine, 18 miles southwest of Piedmont on the North fork of the Potomac River and W. Va. C. & P. R. R. It is a new drift opening that has been opened up within the last six months and is in the Freeport seam, which varies in thickness at this place from 3 1-2 to 4 1-2 feet. The mine is being developed on the double entry system with 40 foot chain pillars and 75 feet barrier pillars. Rooms are being driven with 35 foot centers and 18 feet wide. The roof is hard slate which is very good. Mine doors and stoppings were found in very good repair. Ventilation is produced by fire basket which is giving very fair results. Drainage throughout the mine is good. All mechanical appliances were found in good repair. The incline plane at this place is 600 feet in length over which the coal is lowered to the tippie. Oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted and stretchers and blankets kept on hand at the mine as required by law. All suggestions offered have been adopted. Two inspections were made of the mine during the year and two certificates issued to the company.

LEE OTT, Supt.

B. S. COLEMAN, Mine Boss.

No. 438. *Mine No. 9.*—This mine is located at Hartmanville, 25 miles S. W. of Piedmont, on Abraham's Creek and the Elk Garden branch of the W. Va. C. & P. R. R. It is a new drift opening in the Big vein, coal varying in height at this place from 11 to 14 feet, and the mine is being developed on the double entry system with 50 foot chain pillars and 100 foot barrier pillars. Rooms are driven 60 feet from center to center and driven 12 feet wide. Mine doors and stoppings were found in good repair. The roof of this mine is slate and is a fairly good one. Ventilation at the

present time is natural, but the management is now sinking an air shaft preparatory to installing a furnace. Very little water is generated at this mine, and drainage is good. Traveling ways are free from loose slate and room is had along the haulway. A good quality of miner's oil was found to be in use at this mine. This company keeps on hand at the mine blankets and stretchers as required by law. The incline plane at this place is 1,700 feet in length over which the coal is lowered to the tippie. One inspection was made of this mine during the year and one certificate issued to the company.

LEE OTT, Supt. & Mine Boss.

No. 439. *Mine No. 6.*—This mine is located at Elk Garden, 27 miles S. W. of Piedmont, on the Elk Garden branch of the W. Va. C. & P. R. R. This is a drift opening in the Big Vein, which varies from 11 to 14 feet at this place in thickness. The mine is developed on the double entry system, with 50 foot pillars between entries and rooms driven 60 feet from center to center and 12 feet wide. No new work is being advanced at this mine, and all headings have been driven to out crop; it is all pillar work preparatory to final abandonment. There will be, however, several years work yet on pillars. Very little water is generated in this mine, and drainage is good throughout. Ventilation is natural and is fairly good throughout the mine. Mine doors and stoppings were in good repair. A single rope haulage is in use in this mine for hauling empties into mine, the loads dropping out by gravity. Rules are posted at this mine as required by law, and blankets and stretchers are kept on hand at the mine. All suggestions offered have been adopted. Four inspections were made of the mine during the year and four certificates issued to the company.

LEE OTT, Supt.

FUNSTON WILSON, Mine Boss.

SMITH COAL CO.

No. 440. *Smith Mine.*—This mine is located 18 miles S. W. of Piedmont, on the North Fork of the Potomac River and W. Va. C. & P. R. R. It is a small drift opening in the Freeport, and the coal varies in thickness from 4 1-2 to 5 feet, with from 12 to 15 inches of slate in center of coal. The mine is developed on the double entry system, with 50 ft. pillars between entries and rooms driven 50 ft. from center to center and 35 ft. wide. A 12 ft. Brazil fan has recently been installed at this mine which has greatly benefitted the ventilation and it is now first-class throughout the mine. Some water is generated in this mine, the drainage being fairly good. The roof of this mine is hard slate and is fairly good. The mine is properly timbered and there is room along the haulways. The oil used for illuminating purposes is legal test and up to the standard. The second opening is clear and comes up to the requirements of the law. Four inspections were made of this mine during the year, four certificates issued and all suggestions offered were adopted.

Note.—The incline plane at this place is 300 feet in length over which the coal is lowered to the tippie.

R. A. SMITH, Supt.

W. D. WALKER, Mine Boss

PIEDMONT & POTOMAC COAL CO.

No. 441. *Virginia Mine*.—This mine is located at Piedmont, on the North fork of the Potomac River and B. & O. R. R. It is a drift opening in the Freeport, which varies in thickness from 3 1-2 to 4 1-2 feet. The mine is developed on the double entry system, with 40 ft. chain pillars and 75 ft. barrier pillars. Rooms are driven 40 ft. from center to center and 20 ft. wide. The roof is very irregular, being composed of sand-stone and heavy draw slate, and is bad when not properly timbered. Roadways are free from loose slate and there is room along haulways. Very little water is generated at this mine and drainage is good throughout. The second opening comes up to the requirements, cross-cuts are regularly driven, mine doors and stoppings should be given more attention. Ventilation is produced by furnace which gives fairly good results. The oil used for illuminating purposes is legal test and up to the required standard. Rules are posted as required by law, and stretchers and blankets are kept on hand at the mine. The incline plane at this place is 1,500 feet in length over which the coal is lowered to the tippie. Four inspections were made, four certificates issued and all suggestions offered were adopted.

W. E. HERNDON, Supt.

W. B. SNYDER, Mine Boss.

BIG VEIN COAL CO.

Nos. 442 & 443. *Four Foot & Big Vein Mine*.—This mine is located at Shaw, 11 miles S. W. of Piedmont, on the W. Va. C. & P. R. R., and North Fork of the Potomac River. These are two drift openings in the Four Foot and Big Vein. Very little work is being done at the Four Foot, the main heading and air way having been driven a distance of 300 feet, a pair of right headings having been broken off and three or four rooms opened. The mine has been standing idle for some time, the Big Vein work being all out-crop work, the main body of coal having been worked out by another company years ago. The ventilation is produced by natural means, and owing to numerous openings it is good. The two incline planes at this place, over which the coal is lowered to the tippie, aggregate a length of 3,400 feet. Four visits have been made, four certificates issued and all suggestions offered have been adopted.

C. F. JORDON, Supt.

WM. BURKE, Mine Boss.

TAYLOR COAL CO.

No. 444. *Taylor Mine*.—This mine is located at Emory, on the Elk Garden branch of the W. Va. C. & P. R. R., on Abraham's Creek. It is a small drift opening working 12 or 15 men, in the Freeport. The mine is developed on the double entry system, with 40 ft. pillars and 75 ft. barrier pillars. Rooms are driven 40 ft. from center to center and 20 ft. wide. The roof of this mine is hard slate, making an excellent roof. Ventilation is by natural means and not good. The company have promised, however, to install a furnace as soon as possible. Very little water is generated, and drainage is good. Mine doors and stoppings were found in good repair, and the oil used for illuminating purposes in the mine is legal test and up to the standard. Four inspections were made during the last

year, four certificates issued to the company and all suggestions offered were adopted.

WM. TAYLOR, Supt.

W. B. McHENRY, Mine Boss.

MASTELLAR COAL CO.

No. 445. *Hampshire Four Foot Mine.*—This mine is located at Hampshire, three miles S. W. of Piedmont, on the W. Va. C. & P. R. R., and North Fork of the Potomac River. It is a drift opening in the Four Foot, and was formerly operated by the Davis Coal Company who had abandoned it and had taken up the track. After standing in this condition for several years it has been reopened and is now operated under lease by the present company. The coal at this place averages about 4 feet in height, 12 to 15 inches which is bone and slate. The mine is developed on the double entry system, with 30 ft. chain pillars and 75 ft. barrier pillars. Rooms are driven 35 ft. from center to center and 20 ft. wide. Ventilation is produced by a 12 ft. force fan of the Brazil type which gives excellent results, supplying plenty of air throughout the mine. Little water is generated in this mine and drainage is good. Mine doors and stoppings were found in good repair. The roof of this mine is heavy slate, making a bad roof when not carefully timbered. The oil used for illuminating purposes was found to be of fair quality. Rules are posted as required by law and stretchers and blankets kept on hand at the mine. One inspection was made of the mine during the year, one certificate issued to the company and all suggestions offered were adopted.

M. MASTELLAR, Supt.

HENRY BYER, Mine Boss.

PRESTON COUNTY.

AUSTEN COAL & COKE CO.

No. 446. *Austen Mine No. 1.*—This mine is located 16 miles east of Grafton, on the B. & O. R. R., and on Raccoon Creek. It is a drift opening in the Freeport seam, which varies in thickness from four to five feet. The mine is developed on the double entry system with 60 ft. pillars between headings and 100 ft. barrier pillars. Rooms are driven 32 feet from center to center and 16 ft. wide. The roof is principally draw slate and is a fairly good roof when properly timbered. A tail rope haulage is in use at this mine, and the present haulway is being widened and re-timbered preparatory to installing an electric locomotive. Mine doors and stoppings are in fairly good repair. Ventilation is produced by a 16 ft. force fan, which does not give satisfactory results, owing to intake air way being badly clogged with falls of slate. The management is having a new air way driven to out crop and it is the intention to install a larger and more powerful fan, and the ventilation will then no doubt be satisfactory.

Extensive improvements are being made at this mine, a new tippie being erected, two hundred coke ovens being added to the present plant of eighty-three ovens, an electric power house is under course of construction, and it is the intention to mine and haul their coal in the future by electric power. Four inspections have been made of this mine this year, four certificates issued to the company and all suggestions have been adopted.

F. W. HORCHLER, Supt.

G. R. COOK, Mine Boss.

air compressor of 16 machine capacity, 8 mining machines of the Harrison compressed air puncher type, and they have had fan rebuilt but it is not giving good results. A coking plant of 105 ovens are attached to this mine, but have been out of blast for several years. Recently 25 of these ovens have been put in blast, but the results were not satisfactory owing to the coal being too high in sulphur. A washer is in course of construction with a capacity of 200 tons in ten hours, which, when completed, will no doubt give a more satisfactory grade of coke.

Four inspections were made of this mine during the year and four certificates issued to the company. All suggestions have been adopted with the exception of ladder way, or hoist in air shaft, and building new fan house and retimbering air shaft.

R. D. WILSON, Supt.

JNO. HUMPHREYS, Mine Boss

J. W. N. MCGINNESS, Fire Boss.

GORMAN COAL & COKE CO.

No. 449. *Gorman Mine No. 3.*—This mine is located 17 miles east of Grafton, on the B. & O. R. R., and Raccoon Creek. It is a drift opening in the Freeport, which varies in thickness from 4 to 5 feet. The mine is developed on the tripple entry system on main entry and double entry system on cross entry, with 60 ft. pillars between entries and rooms driven 34 feet from center to center and 17 feet wide. The roof is heavy draw slate, making a bad roof. The roadways are free from loose slate, and there is room along haulways. Very little water is generated in this mine and drainage is good throughout. The second opening comes up to the requirements of the law, cross-cuts are regularly driven and mine doors and stoppings were found in good repair. Ventilation is produced by a 10 ft. force fan of the Robinson type, which gives excellent results. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes was found to be of fair quality. Rules are posted at the mine as required by law, stretchers and blankets are kept on hand at the mine. A great deal of trouble has been experienced at this mine by the number of faults encountered in the mine, making it very expensive to operate. Five compressed air machines of the puncher type are in use at this mine; a 150 H. P. Ingersol Sargent air compressor which furnishes the power. The incline plane at this mine is 450 feet in length over which the coal is lowered to the tipple. A coking plant of 65 ovens has been built at this mine but have not as yet been put into blast. A shaft has been sunk to a depth of 105 feet, not finding any coal. They have started to drill, thinking possibly they may have gone through a fault or a washout with their shaft. I have not as yet learned the results of their drill holes. Four inspections were made of the mine during the year, and all suggestions offered were adopted.

E. M. KINLEY, Supt.

D. M. HARR, Mine Boss.

IRONA COAL CO.

No. 450. *Irona Mine No. 1.*—This mine is located two miles south of Kingwood on the W. Va. N. R. R. It is a drift opening in the Freeport, which varies in thickness from 3 1-2 to 4 1-2 feet. The mine is developed

on the double entry system, with 50 foot pillars between entries and rooms driven 18 feet wide. The roof is hard slate and bone coal, making a good roof. The mine is properly timbered, roadways are free from loose slate and sufficient room is had along the haulways. Very little water is generated and drainage is good. The second opening comes up to the requirement of law. Crosscuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by an 8 foot exhaust fan run by belt, which was producing, on my last inspection, 20,000 cubic feet of air at intake per minute, but this had leaked through stoppings until last cross-cut at face of main haulage there were only 3,000 feet. The company has changed superintendent and mine foreman, and the new officials have promised to remedy this evil at once. All mechanical appliances in and about the mine were found in satisfactory condition. Oil used for illuminating purposes was found to be of fair quality. Rules are posted and blankets and stretchers kept on hand at the mine as required by law. A tail rope haulage is in use at this mine, five mining machines of the Harrison puncher type are also in use. The power plant is equipped with two 150 Erie boilers, one 150 H. P. Ingersol-Sargeant air compressor furnishing the power for No. 1 and No. 2 mine. Four inspections were made of this mine during the year and four certificates issued to the company.

EDWARD HUGHES, Supt.

WALTER RIGGINS, Mine Boss.

No. 451. *Irona Mine No. 2.*—This mine is located two miles south of Kingwood, on the W. Va. N. R. R. It is a drift opening in the Freeport, which varies in thickness from 3 1-2 to 4 1-2 feet. The mine is developed on the double entry system, with 30 foot pillars between entries and 100 foot barrier pillars. Rooms are driven 36 feet from center to center and 18 feet wide. The roof is sand-stone and bone coal, making a good roof. The mine is properly timbered and roadways are free from loose slate and room is had along haulways. Very little water is generated in the mine and drainage is good. The second opening comes up to the requirements of the law, cross-cuts are regularly driven, and mine doors and stoppings are in good repair. Ventilation is produced by a small furnace which does not produce sufficient air to properly ventilate the mine. A new air shaft has been sunk and a new furnace is under construction 5x8 feet, which will have a motive column 6x6 feet and 80 feet in height. This, when completed, will greatly benefit the ventilation. All mechanical appliances in use in and about the mine were found satisfactory. Five compressed air mining machines of the Sullivan puncher type are in use. The coal is hauled by rope and dumped over No. 1 tippie. Four inspections were made of the mine during the year and four certificates issued to the company.

EDWARD HUGHES, Supt.

WALTER RIGGINS, Mine Boss.

MERCHANTS COAL CO.

No. 152. *Tunnelton Mine No. 1.*—This mine is located at Tunnelton, 20 miles east of Grafton, on the main line of the B. & O. R. R. It is a drift opening in the Freeport, which varies in thickness from 4 to 4 1-2 feet. The mine is developed on the double entry system, with 50 foot

chain pillars and 100 foot barrier pillars. Rooms are driven 30 feet from center to center and 18 feet wide. The roof of this mine is sand-stone and draw slate, the draw slate making a bad roof. The roof on ten right entry was noticed to be badly broken. Very little water is generated in this mine and drainage is good. The second opening comes up to the requirements of law, cross-cuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by a 6x4 1-2 foot furnace which gives excellent results and furnishes sufficient air throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. The oil used for illuminating purposes in the mine was found to be of good quality. Rules are posted at the mine and stretchers and blankets are kept on hand at the mine as required by law. Four inspections were made of the mine during the year, four certificates issued and all suggestions offered have been adopted.

WM. WARNER, Supt.

MARSHALL SHEETS, Mine Boss.

No. 453. *Tunnelton Mine Nos. 2 & 3.*—This mine is located at Tunnelton, 20 miles east of Grafton, on the main line of the B. & O. R. R. It is a drift opening in the Freeport, which varies in thickness from 4 to 4 1-2 feet. The mine is developed on the double entry system, with 50 foot chain pillars and 100 feet barrier pillars. Rooms are driven 40 feet from center to center and 20 feet wide. The roof is sand-stone and draw slate, making a bad roof. The mine is properly timbered, roadways are free from loose slate and room is had along haulways. Some water is generated in this mine and it is necessary to use two pumps, one air and one electric, which are of sufficient capacity to keep the mine free from water. The second opening of this mine comes up to the requirements of law, cross-cuts are regularly driven and mine doors and stoppings are in good repair. The company has started to install brick stoppings. Ventilation is produced by a 24 foot force fan, which, on date of my last inspection, **was producing** 62,000 cubic feet of air per minute. Nearly one half of this was returning on main haulage of No. 2 mine. This could be avoided by the construction of an over cast and splitting their air and ventilating No. 2 and No. 3 mine separately, and thereby avoid the carrying of entire volume of air around the working faces of both mines. This would shorten the distance the air has to travel by fully one half. All mechanical appliances in use in and about the mine were found in a satisfactory condition. The oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted, stretchers and blankets being kept on hand as required by law. This mine is equipped with six Morgan-Gardner electric chain mining machines, four Sullivan and two Harrison compressed air machines of the puncher type, one 12 ton Morgan-Gardner and one ten ton Jeffrey's electric mine locomotives being in use. The power house is equipped with three 150 H. P. boilers, two 100 K. W. Morgan-Gardner generators and one 150 H. P. air compressor. Four inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered have been adopted.

WILLIAM WARNER, Supt.

W. B. EDWARDS, Mine Boss.

OAKLAND COAL AND COKE CO.

No. 454. *Corinth Mine*.—This mine is located 42 miles east of Grafton, on Snowy Creek and main line of the B. & O. R. R. It is a drift opening in the Freeport, which varies in thickness from 3 to 4 feet. The mine is developed on the double entry system, with 40 foot pillars between entries and 40 foot barrier pillars. Rooms are driven 32 feet from center to center and 16 feet wide. The roof is hard slate, making a fairly good roof. The mine is fairly timbered, and there is sufficient room along the haulways. Drainage is bad along the main haulway working places in the mine, but fairly well drained. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by fire basket which does not give sufficient air to properly ventilate the mine. The company, however, have ordered a fan and will have it installed as soon as possible. All mechanical appliances were found in satisfactory condition. The oil used for illuminating purposes is legal test and up to the standard. Rules are posted and stretchers and blankets kept on hand at the mine as required by law. The permanent improvements made during the year are as follows: A tail rope haulage with an 110 H. P. engine, a 150 H. P. Erie boiler, a new tippie, and the coking plant of fifty ovens at this mine which have been standing idle for several years has been put into blast. Four inspections were made of the mine during the year and four certificates issued to the company. S. H. JORDON, Supt. GEO. WATSON, Mine Boss.

KINGWOOD COAL CO.

No. 455. *Howesville Mine*.—This mine is located at Howesville, 4 miles south of Kingwood, on the W. Va. N. R. R. It is a drift opening in the Freeport vein, which varies from 3 1-2 to 4 1-2 feet in thickness at this place. This mine is developed on the double entry system with 50 foot pillars between entries, rooms driven 40 feet from center to center and 20 feet wide. The roof is sand-stone, which makes a good roof. The mine is properly timbered and room is had along the haulways. The mine doors and stoppings were found in first class repair, some little water is generated and it is drained well throughout. Ventilation is produced by furnace, which gives sufficient air throughout the mine. A good quality of oil for illuminating purposes was found to be used. Rules are posted and blankets and stretchers kept on hand at the mine as required by law. Six mining machines of the Harrison compressed air puncher type are in use at this mine. Their power plant is equipped with an 80 H. P. compressor, two 75 H. P. boilers, a pair of 50 H. P. haulage engines being used for pulling coal from the mouth of the mine to top of dump. The mine entrance is 75 feet lower than the tippie, an incline trestle connecting mouth of mine with tippie. Four inspections were made of this mine during the year and four certificates issued to the company. All suggestion offered have been adopted. V. E. GOCKE, Supt. J. W. DONAHUE, Mine Boss.

HITE COAL & COKE CO.

No. 456. *Dixie Mine*.—This mine is located 15 miles east of Grafton,

on the main line of the B. & O. R. R., and Raccoon Creek. It is a drift opening in the Freeport vein, which varies in thickness from 3 1-2 to 4 1-2 feet. The mine is developed on the double entry system with 50 foot pillars between entries and rooms driven 34 feet from center to center and 17 feet wide. The roof is sand-stone and draw slate, making a fairly good roof. The roadways are free from loose slate and there is sufficient room along haulways. Drainage is good in all parts of the mine.

ORR COAL & COKE CO.

No. 457. *Vulcan Mine*.—This mine is located 15 miles east of Grafton, on the B. & O. R. R., and Raccoon Creek. It is a drift opening in the Freeport vein, which varies in thickness from 3 1-2 to 4 1-2 feet. The mine is developed on the double entry system with 50 foot pillars between entries, and rooms driven 34 feet from center to center and 17 feet wide. The roof is draw slate and sand-stone, which makes a fairly good roof when properly timbered. Roadways are free from loose slate and room is had along the haulways. Some water is generated and drainage is fairly good. The second opening comes up to the requirements. Ventilation is produced by a 12 foot force fan of the Brazil type, which gives sufficient air throughout the mine. All mechanical appliances in use were found in a satisfactory condition. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. The oil used in this mine for illuminating purposes was found to be of good quality. Rules are posted, blankets and stretchers are kept on hand at the mine as required by law. Five mining machines of the Harrison compressed air type are in use. A heavy grade is encountered on main haulage in this mine and a small pair of haulage engines are located at the head of grade. A lead rope is used to haul empties into the mine, the loads dropping out by gravity. The power plant is equipped with one 150 H. P. Erie boiler and an 80 H. P. Norwalk air compressor. A coking plant of 100 beehive ovens is nearing completion and a coal bin with a capacity of 400 tons is also nearing completion. There were four inspections made of this mine during the year and four certificates issued to the company.

J. M. ORR, Supt.

E. V. SMITH, Mine Boss.

MANUFACTURERS COAL & COKE CO.

No. 458. *Irondale Mine No. 2*.—This mine is located at Irondale, 12 miles east of Grafton, on the B. & O. R. R., and Three Fork Creek. This is a slope opening in the Kittanning vein, which varies in thickness from 4 1-2 to 5 1-2 feet. The mine is developed on the double entry system with 50 foot pillars between entries and 75 feet barrier pillars. Rooms are driven 40 feet from center to center and 20 feet wide. The roof of this mine is soft shaley slate and is bad, but the mine is properly timbered. Very little water is generated and drainage throughout the mine is good. Explosive gases in some parts of the mine are given off in small quantities. The second opening comes up to the requirements. Cross-cuts are regularly driven and mine doors and stoppings were found in

good repair. Ventilation is produced by a 14 foot exhaust fan of the Brazil type, which gives sufficient air through all parts of the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. The mining machines have been taken out of this mine and compressor removed, as it did not prove a success. A tail rope haulage is in use at the mine with two 100 H. P. boilers and a pair of 100 H. P. haulage engines. Four inspections were made of this mine, four certificates issued and all suggestions offered have been adopted.

J. H. CRAMER, Supt.

J. H. LARUE, Mine Boss.

J. R. PURINTON, Fire Boss.

IRONDALE VALLEY COAL & COKE CO.

No. 459. *Irondale Valley Mine*.—This mine is located at Irondale, 12 miles east of Grafton, on the B. & O. R. R., and Three Fork Creek. This is a new drift opening in the Kittanning vein and has been opened up within the last year. Coal at this place varies in thickness from 4 1-2 to 5 1-2 feet. The mine is developed on the tripple entry system on main headings and double entry on cross headings, with 30 foot pillars between entries and 75 foot barrier pillars. Rooms are driven 36 feet from center to center and 18 feet wide. The roof of this mine is a soft shaley slate and is bad, but the mine is properly timbered. Some water is generated in each Butt heading, but is fairly well drained. The second opening comes up to the requirements. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by a 12 foot force fan of the Brazil type, which gives excellent results. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Rules are posted at the mine and stretchers and blankets kept on hand as required by law. Four inspections were made of the mine during the year, four certificates issued to the company and all suggestions offered were adopted.

G. M. RENSHAW, Supt. and Mine Boss.

ATLANTIC COAL & COKE CO.

Nos. 460 and 461. *Atlantic Mine Nos. 1 and 2*.—This mine is located 22 miles from Grafton, on a branch of the W. Va. N. R. R., on Pringle Run. These are two new openings which have been opened up in the Freeport seam within the last year, and varies in thickness at this place from 3 1-2 to 4 1-2 feet. The mine is being developed on the tripple entry system on main heading and on the double entry system on cross heading, with 40 foot pillars between entries and 100 feet barrier pillars. Rooms are driven 40 feet from center to center and 25 feet wide. The roof of this mine is sand-stone and draw slate, making a bad roof. The mine is properly timbered. Some water is generated in this mine and drainage is fairly good. The second opening comes up to the requirements and cross-cuts are regularly driven. Mine doors and stoppings are in good repair. Ventilation is produced at present by a small temporary fan which does not furnish sufficient air, but the company has a

16 foot Robinson fan on the ground and will have it installed as soon as possible. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. A 17 ton general electric mine locomotive is in use at this mine for hauling coal. Eight compressor air mining machines of the Sullivan puncher type are used. Their power plant is equipped with four 150 H. P. Erie boilers, a 265 H. P. McEwen engine, belted to a 150 K. W. Ridgeway generator, a 180 H. P. Norwalk air compressor of 24 machine capacity. Four inspections were made of this mine during the year, four certificates issued and all suggestions offered were adopted.

E. W. TRAU, Supt.

J. W. FORTNEY, Mine Bos.

RANDOLPH COUNTY.

JUNIOR COAL CO.

Nos. 462 and 463. *Coalton Mines Nos. 1 and 2.*—These mines are located at Womelsdorff, 15 miles south of Belington, on the B. R. C. & C. R. R., and Roaring Creek. It is a drift opening in the Freeport, which varies in height from 7 to 8 feet. This mine is being developed on the tripple entry system on main headings and double entry on the cross headings, with 40 foot pillars between entries and 100 feet barrier pillars. The roof is soft soap-stone and is bad. 1 1-2 feet of the top coal is left up in the rooms for roof and the mine is properly timbered. Roadways are free from loose slate and room is had along the haulways. Very little water is generated and drainage is good throughout the mine. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by fire basket, which does not produce sufficient air. The company has ordered a large fan which will be installed as soon as possible. All mechanical appliances in use in and about the mine were found satisfactory. Oil used for illuminating purposes in the mine was found to be of good quality. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. Extensive improvements are under course of construction at this mine, there having been built 85 new houses for the employes of the company to occupy, and 300 coke ovens are under course of construction, 100 of which have already been completed. A new steel tripple is being erected; also a coal bin with a capacity of 1,500 tons. The power house with 4 150 H. P. Erie special boilers with a 250 K. W. General electric generator is nearly completed. One 13 ton and two 7 ton General electric mine locomotives have been ordered. Four inspections have been made during the year of this mine, four certificates issued to the company and all suggestions offered have been adopted.

A. C. FINLEY, Supt.

DAVIS STODDARD, Mine Boss.

Nos. 463 A and B. *Monroe Mine Nos. 1 & 2.*—These mines are located 11 miles south of Belington, on Tygarts Valley River and B. R. C. & C. R. R. This is a new drift opening in the Freeport seam which has recently opened. The coal varies in thickness at this place from 7 to 8 feet, with hard slate and sand-stone roof, which makes a splendid roof. This mine will be developed on the tripple entry system on main head-

ings and double entry on cross headings. Nothing but entry work is being done at present, having had on my last visit there 600 feet of the main headings advanced. Two inspections were made of the mine during the year and two certificates issued to the company.

A. C. FINLEY, Supt.

R. D. EDWARDS, Mine Boss.

No. 464. *Harding Mine*.—This mine is located 10 miles south-east of Belington, on the Tygarts Valley River and W. Va. C. & P. R. R. It is a drift opening in the Freeport seam, which varies in thickness from 7 1-2 to 8 1-2 feet. The roof is heavy draw slate full of slips, necessitating the leaving up of the top coal to which they can timber. The mine is properly timbered, and is developed on the double entry system, with 50 foot pillars between entries and 75 feet barrier pillars. The rooms are driven 50 feet from center to center and 20 feet wide. Some water is generated and the mine is only fairly well drained. The second opening comes up to the requirements, and cross-cuts are regularly driven. Mine doors and stoppings are in fairly good repair. Ventilation is produced by an 8 foot exhaust fan, which furnishes a fair amount of ventilation. All mechanical appliances in use in and about the mine were found in a satisfactory condition. The oil used for illuminating purposes in the mine was found to be of good quality. Rules are posted at the mine and stretchers and blankets kept on hand as required by law. Thirty-five new coke ovens have been added to the coking plant of this mine, making eighty-five ovens in all. The improvements under course of construction at this mine are as follows: A power plant with four 150 H. P. Erie boilers. A General electric 250 K. W. generator. One 13 ton and two 7 ton G. E. mine locomotives are being installed. Four inspections have been made of this mine during the past year, four certificates issued and all suggestions offered have been adopted.

A. C. FINLEY, Supt.

J. M. DAVIS, Mine Boss.

MARYLAND SMOKELESS COAL CO.

No. 465. *Weaver Mine No. 1*.—This mine is located 5 miles south-east of Belington, on Beaver Creek and the B. & R. C. R. R. It is a drift opening in the Freeport, and varies in thickness from 7 1-2 to 8 1-2 feet. The mine is being developed on the double entry system with 50 foot pillars between entries and 75 foot barrier pillars. Rooms are driven 50 feet from center to center and 20 feet wide. Very little water is generated in this mine and the drainage throughout is good. Roadways are free from loose slate and there is sufficient room along haulways. The second opening comes up to the requirements. Cross-cuts are regularly driven and mine doors and stoppings were in good repair. Ventilation is produced by a 7 foot force fan of the Robinson type, which furnishes ample ventilation to all parts of the mine. The oil used for illuminating purposes in the mine was found to be of fair quality. Rules are posted and blankets and stretchers kept on hand at the mine as required by law. Among the improvements noted were the following: A coking plant of 185 Beehive ovens, forty-one under course of construction, and a 12 foot fan and 150 H. P. boiler added to their capacity. Four

inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered were adopted.

J. W. DUMPHEY, Supt.

JAS. STEWART, Mine Boss.

No. 466. *Weaver Mine No. 2.*—This mine is located 5 miles south-east of Belington, on Beaver Creek and B. & R. C. R. R. It is a drift opening in the Freeport, which varies from 7 1-2 to 8 1-2 feet. Heretofore from 2 to 2 1-2 ft. of coal have been left up for roof, but it was found it could be taken down without endangering the roof. The mine is developed on the double entry system with 50 foot chain pillars and 75 foot barrier pillars. Rooms are driven 50 feet from center to center and 20 feet wide. Roadways are free from loose slate and room is had along haulways. Some water is generated in this mine and drainage is fairly good. The second opening comes up to the requirements of law. Cross-cuts are regularly driven, and mine doors are in fairly good repair. Ventilation is produced by a 12 foot force fan of the Robinson type, which has recently been installed. This fan furnishes ample ventilation for the mine throughout. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes in the mine was found to be of standard quality. Rules are posted and the company keep on hand at the mine stretchers and blankets. The permanent improvements which have been made during the past year are as follows: A 12 foot Robinson fan and 100 H. P. boiler.

No. 3 mine is being opened up one mile north from No. 2 opening. It is a drift opening in the same coal measure as No. 1 and No. 2. Nothing but headings are being advanced as yet, the main haulage and air way having been driven a distance of 400 feet on date of my last inspection. Four inspections have been made of this mine during the year, four certificates issued and all suggestions offered were adopted.

J. W. DUMPHEY, Supt.

J. L. THOMAS, Mine Boss.

No. 467. *Leiter Mine.*—This mine is located 9 miles south of Belington on the B. & R. C. R. R., and Tygarts Valley River. It is a drift opening in the Freeport. The coal at this place is very irregular and full of faults and clay veins. The mine is developed on the double entry system with 40 foot pillars between entries and 75 foot barrier pillars. Rooms are driven 35 feet from center to center and 20 feet wide. The roof is heavy draw slate, making a fair roof when properly timbered. Roadways are free from loose slate and room is had along the haulways. Drainage is good with the exception of north headings, which are going to the dip generating considerable water. The second opening comes up to the requirements of the law. Cross-cuts are regularly driven and mine doors and stoppings were found in fairly good repair. Ventilation is produced by furnace which does not give satisfaction, as it is insufficient to properly air the mine. The management has promised, however, to have a fan installed as soon as possible. The oil used for illuminating purposes in this mine was found to be up to the standard. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. All mechanical appliances in use in and about the mine were found to be in a satisfactory condition. Two Sullivan mining machines of the compressed air punching type are in use. A power plant

equipped with two 75 H. P. Erie boilers and an 85 H. P. Ingersol Sargeant air compressor is located at this mine. The incline plane at this place is 500 feet over which the coal is lowered to the tippie. Four inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered were adopted.

J. W. DUMPHEY, Supt.

DAVID BROWN, Mine Boss.

RITTER COAL CO.

No. 468. *Klondyke Mine*.—This mine is located at Fisher, 17 miles south-east of Belington on the B. & R. C. R. R. and Roaring Creek. It is a small drift operation in the Freeport, which varies in thickness at this place from 7 to 8 feet. This mine is developed on the double entry system, with 50 foot pillars between entries. Rooms are driven 40 feet from center to center and 20 feet wide. The roof of this mine is shaley slate, making a fairly good roof when properly timbered. Cross-cuts are regularly driven, and mine doors and stoppings are in good repair. Ventilation is natural and is fairly good. A fair quality of oil is used in this mine for illuminating purposes. Very little water is generated in the mine and the drainage is good. Rules are posted and the company keep on hand stretchers and blankets as required by law. Four inspections were made of this mine during the year, four certificates were issued to the company and all suggestions offered were adopted.

ANDREW HOGG, Supt. and Mine Boss.

TAYLOR COUNTY.

GRAFTON COAL & COKE CO.

No. 469. *Sandlick Mine*.—This mine is located 9 miles west of Grafton, on Simpson Creek and the Parkersburg branch of the B. & O. R. R. It is a drift opening in the Pittsburg seam, which varies in thickness from 7 to 8 feet. The mine is developed on the double entry system with 40 foot pillars between entries, and rooms are driven 40 feet from center to center and 20 feet wide. The roof of this mine is checkered slate and draw slate, which makes a good roof. The mine is properly timbered and roadways are free from loose slate and sufficient room along haulways. Some water is generated in this mine, and drainage in all parts is good. The second opening comes up to the requirements. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. The ventilation is natural, with four openings to out crop and is fairly good. The oil used for illuminating purposes was found to be of satisfactory quality. Rules are posted and blankets and stretchers kept on hand at the mine as required by law. The condition of this mine has been greatly improved since previous report. Water has been drained from mine, a better system of drainage having been installed. Three more openings have been driven to outcrop and a new incline plane and tippie have been constructed. Four inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered were adopted.

GEO. ADAMS, Supt. and Mine Boss.

FLEMINGTON COAL & COKE CO.

No. 470. *Flemington Mine.*—This mine is located at Flemington, ten miles west of Grafton, on Simpson Creek and the Parkersburg branch of the B. & O. R. R. It is a drift opening in the Pittsburg seam, which varies from 7 to 8 feet in thickness. This mine is developed on the double entry system, with 50 foot pillars between entries, and rooms are driven 60 feet from center to center and 20 feet wide. The roof of this mine is hard draw slate, which makes a good roof except near outcrop. The mine is properly timbered and roadways are free from loose slate. Considerable water is generated in this mine. There are three electric pumps in use, one of 5 H. P. with a capacity of 120 gallons per minute, one three horse power with 70 gallons per minute and one of 1 H. P. with 50 gallons per minute. The mine is fairly well drained with the exception of some dip workings. The second opening comes up to the requirements of the law. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by an 8 foot force fan of the Stine type, run by 50 H. P. electric motor with belt. The oil used for illuminating purposes in this mine is up to the standard. Rules are posted and blankets and stretchers are kept on hand at the mine as required by law. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Four electric chain mining machines of the Morgan-Gardner type are in use at this mine. Three ten ton Morgan-Gardner electric mine locomotives are also in use. Their power plant is equipped with three 150 H. P. Erie boilers and two 100 K. W. Morgan-Gardner generators. The incline plane at this place is 350 feet over which the coal is lowered to the tippie. Four inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered were adopted.

G. W. DAVIDSON, Supt.

G. R. W. JOHNSON, Mine Boss.

DAVIS COAL & COKE CO.

No. 471. *New York Mine.*—This mine is located at Simpson, 8 miles west of Grafton, on Simpson Creek and the Parkersburg branch of the B. & O. R. R. It is a drift opening in the Pittsburg seam, which varies in thickness from 7 to 8 feet. The mine is developed on the double entry system with 50 foot chain and 100 foot barrier pillars. The rooms are driven 40 feet from center to center and 20 feet wide. The roof is hard checkered slate, which makes a splendid roof. The mine is properly timbered and the roadways are free from loose slate with room along the haulways. Very little water is generated in this mine and drainage throughout is good. The second opening comes up to the requirements of the law. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by a furnace, which gives fairly good results and furnishes a fair amount of air in all parts of the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. The oil used for illuminating purposes in the mine was found to be of good quality. Rules are posted and blankets and stretchers kept on hand at the mine as required by

law. Among the permanent improvements made at this mine during the year was a tail rope haulage system with 80 H. P. haulage engines and 100 H. P. boiler. A new air shaft has been sunk and a new furnace built, which has improved the ventilation. Four inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered were adopted.

The incline plane at this place over which the coal is lowered to the tippie is 1,250 feet in length.

L. B. BRYDON, Supt.

W. J. PHILLIPS, Mine Boss.

B. F. RADABAUGH & CO.

No. 472. *Foster Mine*.—This mine is located at Brydon, 7 miles west of Grafton, on Simpson Creek and the Parkersburg branch of the B. & O. R. R. It is a small drift opening in the Pittsburg vein, which varies in height from 7 to 8 feet. It is all pillar work and generates considerable water owing to the surface breaks. Ventilation is natural and very good. The roof is of draw slate, which does not make a good roof. The second opening comes up to the requirements. The oil used for illuminating purposes in the mine was found to be of good quality. Rules are posted at the mine as required by law. The incline plane at this place over which the coal is lowered to the tippie is 1,000 feet in length. Three inspections were made of this mine during the year, three certificates issued to the company and all suggestions offered were adopted.

L. B. BRYDON, Supt.

JNO. QUINN, Mine Boss.

ROSEMONT COAL CO.

No. 473. *Rosemont Mine*.—This mine is located at Rosemont, 12 miles west of Grafton, on Simpson Creek and the Parkersburg branch of the B. & O. R. R. This is a drift opening in the Pittsburg seam, which varies in thickness from 7 to 8 feet at this place. The mine is developed on the double entry system on main headings with 50 foot chain pillars and 75 foot barrier pillars. The cross entries are on single entry system, and every third room is driven through the next proceeding heading. Rooms are driven 40 feet from center to center and 20 feet wide. The roof is draw slate, making a bad roof. One foot of the top coal is left up. The mine is properly timbered and roadways are free from loose slate and room is had along the haulways. Ventilation is natural and very good. Three new openings have been driven to outcrop within the last year for ventilation and drainage. Considerable water is generated on first and second left headings, but since new openings have been driven drainage is good. The oil used for illuminating purposes is legal test and up to the standard. Rules are posted and the company keeps on hand at the mine stretchers and blankets as required by law. Four inspections were made of this mine during the year and four certificates issued to the company.

An incline plane at this place over which the coal is lowered to the tippie is 1,100 feet in length.

JNO. FAHEY, Supt.

FRANK SAVAGE, Mine Boss.

T. B. DAVIS.

No. 474. *Davis Mine*.—This mine is located 9 miles west of Grafton, on Simpson Creek and the Parkersburg branch of the B. & O. R. R. It is a drift opening in the Pittsburg seam, which varies in thickness from 7 to 8 feet. This mine is developed on the double entry system, with 50 foot pillars between entries and 75 foot barrier pillars. Rooms are driven 40 feet from center to center and 20 feet wide. The roof is heavy draw slate, making a bad roof. Roadways are free from loose slate and there is sufficient room along haulways. Ventilation is produced by fire basket, which, during the summer months, does not furnish sufficient air to properly ventilate the mine. Drainage is good, with the exception of main south entries which are going to the dip and are generating water. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. Rules are posted at the mine and the company **keeps on hand** stretchers and blankets as required by law. The incline plane at this place over which the coal is lowered to the tippie is 750 feet in length. Four inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered have been adopted.

W. T. DAYLEY, Supt.

T. A. FLEMING, Mine Boss.

TUCKER COUNTY.

DAVIS COAL & COKE CO.

No. 475. *Thomas Drift Mine*.—This mine is located at Thomas, 38 miles south-west of Piedmont, on the north fork of the Blackwater River, and the W. Va. C. & P. R. R. It is a drift opening in the Freeport seam, which varies in thickness from 7 to 8 feet at this place. The mine is developed on the double entry system, with 50 foot chain pillars between entries and 200 foot barrier pillars. Rooms are driven 60 feet from center to center and 20 feet wide. The roof is hard blue slate, which makes a splendid roof. The mine is properly timbered, the roadways are free from loose slate and there is sufficient room along the haulways. Considerable water is generated at this mine owing to local dips, which make it difficult to drain and require the use of a number of pumps, viz: One 8x10 Yough Duplex plunger pump, electrically driven by 50 H. P. General electric 3 phase motor, capacity 500 gallons per minute. One 6x5 Yough duplex piston pump, electrically driven by 30 H. P. General electric 3 phase motor, with capacity of 300 gallons per minute. One 3x4 Yough duplex plunge pump, electrically driven by a 10 H. P. General electric 3 phase motor, with a capacity of 150 gallons per minute. One 2 1-2x3 Yough duplex piston pump, electrically driven by a 10 H. P. General electric 3 phase motor, with a capacity of 100 galons per minute.

The second opening comes up to the requirements of the law. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by a 24 foot fan, which furnishes a sufficient amount of air throughout all parts of the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. The oil used for illuminating purposes in the mine is legal

test. Rules are posted, stretchers and blankets are kept on hand at the mine as required by law. The mine is equipped with one 20 ton, three 13 ton General electric mine locomotives for hauling coal. A central power house, which furnishes the power for Nos. 23, 25 and 34 mines, is located at this place with the following equipment: Five 150 H. P., two 100 H. P. and two 80 H. P. return tubular boilers. One 2,000 H. P. Stilwell heater. One 10x12 Smith & Vale hot water boiler feed pump. One 22x18 Ames simple automatic engine, belted to 225 K. W. General electric D. C. generator. One 16x18 Ames simple automatic engine connected direct to 150 K. W. General electric D. C. generator. Two Atlas, four valve automatic engine belted to 100 K. W. 3 phase A. C. generator. One 20x27 Russell four valve automatic engine, belted to 200 K. W. 3 phase A. C. generator. One marble switch board for controlling mine circuits, consisting of five generator pannels and six feeder pannels.

Four inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered were adopted.

L. S. McDOWELL, Supt.

G. W. CAMPBELL, Mine Boss.

No. 476. *Thomas Shaft Mine*.—This mine is located at Thomas, 38 miles south-west of Piedmont, on the north fork of the Blackwater River and the W. Va. C. & P. R. R. This mine is a shaft opening in the Kittanning seam, which is found at a depth of 187 feet, which varies in thickness from 5 to 7 feet. The mine is developed on the double entry system with 50 ft. chain pillars and 100 ft. barrier pillars. The rooms are driven 50 ft. from center to center and 15 ft. wide. The roof is a heavy draw slate, which makes a bad roof. The mine is properly timbered, and roadways are free from loose slate, and room is had along the haulways. Considerable water is generated in this mine, owing to the nature of the roof which is constantly falling, and the local dips encountered make it a difficult matter to keep it drained. The following are the number of pumps with their capacity, in use at this mine: One 3x4 Yough duplex plunger pump, electrically driven by 10 H. P. G. E. 3 phase motor, with capacity of 150 gallons per minute. One 4x5 Yough duplex plunger pump, electrically driven by 20 H. P. Westinghouse 3 phase motor, with capacity of 250 gallons per minute. One 16x18x20 Jeansville duplex plunge steam pump, with capacity of 800 gallons per minute. One 24x30 Yough, single action steam pump, capacity 700 gallons per minute.

The second opening comes up to the requirements of the law. Crosscuts are regularly driven, and mine doors and stoppings were in good repair. Ventilation is produced by a 20 ft. force fan which furnishes a fair amount of air throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes is legal test. Rules are posted and stretchers and blankets kept on hand at the mine as required by law. A coking plant of 114 Beehive ovens are operated in connection with this mine. Two 13 ton, one 6 ton G. E. electric mine locomotives are in use for hauling coal in this mine. Four inspections were made of this during the year and four certificates issued to the company.

L. S. McDOWELL, Supt.

J. S. ATKINSON, Mine Boss.

No. 477. *Thomas Mine No. 3.*—This mine is located 38 miles southwest of Piedmont, on north fork of the Blackwater River and W. Va. C. & P. R. R. It is a drift opening in the Freeport, which varies in thickness from 7 to 8 feet at this place. The mine is developed on the double entry system with 50 ft. chain pillars and 150 barrier pillars. Rooms are driven 60 ft. from center to center and 18 feet wide. The roof is hard blue slate, making a splendid roof. The mine is properly timbered and the roadways are free from loose slate. Some water is generated, but sufficient pump power is in use to keep the mine free from water. A 3x4 Yough duplex plunger pump, electrically driven by 10 H. P. G. E. 3 phase motor with capacity of 150 gallons per minute. A 2 1-2x3 Yough air pump, capacity 100 gallons per minute, are in use at this mine. The second opening comes up to the requirements. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by a 12 ft. fan, which furnishes sufficient air throughout the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. The oil used for illuminating purposes in the mine is legal test. Rules are posted and the company keeps on hand at the mine stretchers and blankets as required by law. The mine is equipped with electric haulage system, with a 13 ton G. E. electric mine locomotive. Four inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered were adopted.

L. S. McDOWELL, Supt.

H. G. SMITH, Mine Boss.

No. 478. *Coketon Mine No. 1.*—This mine is located 39 miles southwest of Piedmont, on the north fork of the Blackwater River and W. Va. C. & P. R. R. This is a drift opening in the Kittanning, which varies in thickness from 5 to 6 feet at this place. The mine is developed on the double entry system, with 50 ft. chain pillars between entries and 100 ft. barrier pillars. The rooms are driven 50 ft. from center to center and 15 ft. wide. The roof is very heavy slate, which makes a bad roof. The mine is well timbered. Considerable water is generated in this mine, making necessary the use of pumps to keep the mine free from water. Drainage is only fairly good, owing to the nature of the top and the softness of coal, and it is difficult to keep the drains open. The second opening comes up to the requirements. Cross-cuts are regularly driven and mine doors and stoppings were in good repair. Ventilation is produced partly by natural means and by part of the return from Nos. 36 and 34 mines, which is not satisfactory in all parts of the mine. The company has promised to install a fan at this place. All mechanical appliances in use in and about the mine were found in satisfactory condition. Oil used for illuminating purposes in the mine is legal test and up to the standard. Power is furnished this mine from the Coketon power house, which furnishes power for the three Coketon mines. This mine is equipped with the following:—Four 150 H. P. return tubular boiler. One 12 American heater. One 6x7 1-2 Smith & Vale feed water pump. One 23x18 Ames simple automatic engine, belted to a 250 K. W. G. E. direct current generator. One 16x18 Ames simple automatic engine belted to one 150 K. W. G. E. 3 phase A. C. generator, and one 22x18 Norwalk double stage air compressor. A coking plant with 460 Beehive ovens is in opera-

tion at the three Coketon mines. Four inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered were adopted.

L. S. McDOWELL, Supt.

E. J. KILROY, Mine Boss.

No. 479. *Coketon Mine No. 2.*—This mine is located 39 miles southwest of Piedmont, on the North fork of the Blackwater River and W. Va. C. & P. R. R. It is a drift opening in the Kittanning seam, which varies in thickness from 5 to 6 feet. The mine is developed on the double entry system, with 50 ft. pillars between entries and 100 ft. barrier pillars. The rooms are driven 50 feet from center to center and 15 wide. The roof is heavy draw slate, which makes a bad roof. From one to two feet of top coal are left up in the rooms in order to make the roof more safe. The mine is properly timbered and roadways are free from loose slate. The drainage is good. The second opening comes up to the requirements. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by a 20 foot force fan, which furnishes sufficient air throughout the mine. All mechanical appliances used in and about the mine were found in a satisfactory condition. Oil used in the mine for illuminating purposes is legal test and up to the standard. Rules are posted and there are stretchers and blankets kept on hand at the mine as required by law. This mine is equipped with electric haulage system and rope haulage. One 13 ton electric G. E. mine locomotive. One pair Mulalland haulage engine, and one 150 H. P. Erie return tubular boiler. Four inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered were adopted.

L. S. McDOWELL, Supt.

G. W. CHRISTOPHER, Mine Boss.

No. 480. *Coketon Mine No. 3.*—This mine is located 39 miles southwest of Piedmont, on the North fork of Blackwater River and the W. Va. C. & P. R. R. It is a drift opening in the Kittanning seam, which varies in thickness at this place from 5 to 6 feet. The mine is developed on the double entry system, with 50 ft. chain pillars and 100 ft. barrier pillars. Rooms are driven 50 feet from center to center and 15 feet wide. The roof is heavy slate, making a bad roof. The mine is well timbered. Roadways are free from loose slate and there is sufficient room along haulways. An unusual amount of water is generated in this mine, which is due to local dips, and it is a serious proposition to keep it free from water. No less than nine pumps of the following capacities are in use day and night: One 8x10 Yough duplex plunger pump, electrically driven by 50 H. P. G. E. 3 phase motor, with capacity of 500 gallons per minute. One 4x5 Yough duplex return piston pump, electrically driven by 30 H. P. Westinghouse 3 phase motor, with capacity of 225 gallons per minute. One 3x4 Yough duplex plunger pump, electrically driven by 50 H. P. G. E. 3 phase motor, with capacity of 150 gallons per minute. Two 3x4 Yough air pumps with capacity each of 150 per minute. Four 2 1-2x3 Yough air pumps, capacity each 150 gallons per minute. One 5x6 Gould's triplex, electrically driven by 10 H. P. G. E. 3 phase motor, capacity 300 gallons per minute.

The second opening comes up to the requirements of the law. Cross-

cuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by a 20 ft. exhaust fan, which furnishes a fair amount of ventilation throughout the mine. Oil used in the mine is legal test. Rules are posted and stretchers and blankets kept on hand at the mine as required by law. This mine is equipped with an electric haulage system, there being in use: one 13 ton G. E. electric mine locomotive and two 13 ton Baldwin-Westinghouse electric mine locomotives. Four inspections were made of this mine during the year, four certificates issued to the company and all suggestions offered were adopted.

L. S. McDOWELL, Supt.

W. F. REEVES, Mine Boss.

CUMBERLAND COAL CO.

No. 481. *Douglass Mine No. 1.*—This mine is located at Douglass, 40 miles south-west of Piedmont, on the north fork of Blackwater River and the W. Va. C. & P. R. R. It is a drift opening in the Kittanning, which varies in thickness from 4 to 6 feet. The mine is developed on the double entry system, with 50 feet chain pillars and 100 barrier pillars. The rooms are driven 50 ft. from center to center and 16 feet wide. The roof is of heavy draw slate, which makes a bad roof. The mine is properly timbered and roadways are free from loose slate. Drainage in all parts of the mine is good. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. The second opening comes up to the requirements. Ventilation is produced by a 24 foot force fan, which furnishes sufficient air to all parts of the mine. All mechanical appliances in use in and about the mine were found in a satisfactory condition. Oil used for illuminating purposes in the mine is legal test and up to the standard. Rules are posted and stretchers and blankets are kept on hand at the mine as required by law. This mine is equipped with a tall rope haulage system, with a pair of 200 H. P. Mulalland haulage engines. Three 150 H. P. Erie return tubular engines. A coking plant of 135 Beehive ovens, and 25 more under course of construction, is in operation in connection with the Douglass mine. Four inspections were made of this mine during the year and four certificates issued to the company.

JNO. B. JENKINS, Supt.

GEO. JENKINS, Mine Boss.

CUMBERLAND COAL CO.

No. 482. *Douglass Mine No. 3.*—This mine is located at Douglass, 40 miles south-west of Piedmont, on the north fork of Blackwater River and W. Va. C. & P. R. R. This is a drift opening in the Kittanning seam, which varies from 4 to 6 feet in thickness at this place. The mine is developed on the double entry system, with 50 foot chain pillars and 100 foot barrier pillars. Rooms are driven 50 ft. from center to center and 16 feet wide. The roof is heavy draw slate, which makes a bad roof. The mine is properly timbered. Roadways are free from loose slate, and room is had long the haulways. Very little water is generated in this mine and drainage is good throughout. The second opening comes up to the requirements. Cross-cuts are regularly driven and mine doors and stoppings are in good repair. Ventilation is produced by fire basket, which furnishes sufficient air throughout the mine. Oil user for illuminating purposes is legal test. Rules are posted and blankets and stretchers kept on hand at the

mine as required by law. A 15 ton steam locomotive is in use at this mine for hauling the coal from mouth of the mine to tippie. No. 4 mine is being opened up by this company, main entry and air way having been driven a distance of 700 feet on date of my last visit. A power house for Nos. 3 and 4 mines is being erected with the following equipment: Two 150 H. P. Erie return tubular boilers. One 300 H. P. Ingersol compressor; mining machines of the Ingersol puncher type. Two Ingersol rock drills. The coal is very faulty at this place, as it is full of sand-stone, which makes it very expensive to operate. Four inspections were made of this mine during the year and four certificates issued to the company. All suggestions offered were adopted.

J. B. JENKINS, Supt.

JAS CHRISTOPHER, Mine Boss.

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